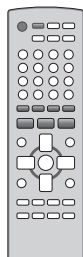


# Panasonic®

Operating Instructions

## DVD Player/ Video Cassette Recorder

Model No. **NV-VP60 Series**



Before attempting to connect, operate or adjust this product,  
please read these instructions completely.  
Please keep this manual for future reference.



**SUPER DRIVE**

RQTV0115-1

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# Warning and Important Information

## Dear Customer

Thank you for purchasing this product. For optimum performance and safety, please read these instructions carefully.

### CAUTION!

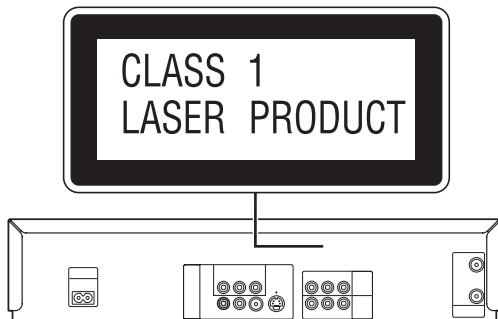
**THIS PRODUCT UTILIZES A LASER.**  
**USE OF CONTROLS OR ADJUSTMENTS OR PERFORMANCE OF PROCEDURES OTHER THAN THOSE SPECIFIED HEREIN MAY RESULT IN HAZARDOUS RADIATION EXPOSURE.**  
**DO NOT OPEN COVERS AND DO NOT REPAIR YOURSELF. REFER SERVICING TO QUALIFIED PERSONNEL.**

### WARNING:

**To reduce the risk of fire, electric shock or product damage, do not expose this equipment to rain, moisture, dripping or splashing and ensure that no objects filled with liquids, such as vases, shall be placed on the equipment.**

**As this equipment gets hot during use, operate it in a well ventilated place;**  
**Do not install this equipment in a confined space such as a book case or similar unit.**

The socket outlet shall be installed near the equipment and easily accessible or the mains plug or an appliance coupler shall remain readily operable.



CAUTION!	- LASER RADIATION WHEN OPEN. DO NOT STARE INTO BEAM. FDA 21 CFR / Class II
CAUTION!	- VISIBLE AND INVISIBLE LASER RADIATION WHEN OPEN. AVOID EXPOSURE TO BEAM. IEC60825-1 / Class 2b
ATTENTION!	- RAYONNEMENT LASER VISIBLE ET INVISIBLE EN CAS D'OUVERTURE. EXPOSITION DANGEREUSE AU FAISCEAU.
ADVARSEL	- SYNLIG OG USYNLIG LASERSTRÅLING VED ÅBNING. UNDGÅ UDSEJTELSE FOR STRÅLING.
VARO!	- AVATTAESSA OLET ALTUURIN NÄKYVÄÄ JA NÄKYMÄTÖN LASERSTRÄLLYLLE. ÄLÄ KATSO SÄTEESIEN.
VARNING	- SYNLIG OCH USYNLIG LASERSTRÅLNING NÄR DENNA DEL ÄR ÖPPNAD. BETRÄKTA EJ STRÅLEN.
ADVARSEL	- SYNLIG OG USYNLIG LASERSTRÅLING NÄR DEKSEL ÅPNES. UNNGÅ EKSPONERING FOR STRÅLEN.
VORSICHT	- SICHTBARE UND UNSICHTBARE LASERSTRÄHLUNG, WENN ABDECKUNG GEÖFFNET. NICHT DEM STRAHL AUSSETZEN.
注意	- 打開時、目に見え、不可見光線が放射。レーザー光線に照らされず、直射光線を見たり、触れたりしないでください。POLCA0161

(Inside of product)

-If you see this symbol-

### Information on Disposal in other Countries outside the European Union



This symbol is only valid in the European Union. If you wish to discard this product, please contact your local authorities or dealer and ask for the correct method of disposal.

### Important

Your attention is drawn to the fact that the recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

### For your safety

- Do not remove the outer cover.
- Touching internal parts of the unit is dangerous and may seriously damage it.
- To prevent electric shock, do not remove the outer cover. There are no user serviceable parts inside. Refer all servicing to qualified service personnel.

### Cautions before you operate this unit

Avoid:

- Using a cell phone near the equipment because doing so may cause noise to adversely affect the picture and sound.
- Humidity and dust.
- Covering the ventilation holes with soft materials such as cloth or paper.
- Extreme heat such as direct sunlight.
- Magnets or electromagnetic objects.
- Touching internal parts of the unit.
- Water or some other liquid.
- Lightning (disconnect the aerial plug from the unit during a lightning storm).
- Anything heavy on the unit.
- Connecting or handling the equipment with wet hands.

Do:

- Wipe the unit with a clean and dry cloth.
- Install the unit in a horizontal position.
- Keep the unit, TV and other equipment switched off until you have finished all connections.

### Condensation may form in the following cases:

- The unit is brought from cold surroundings into a well-heated room.
- The unit is suddenly brought from cool surroundings, such as an air-conditioned room or car, to a place which is hot and humid.

Note:

- In any of the above-mentioned conditions, do not operate the unit for at least 1 hour. This unit is not equipped with a dew sensor.

**NV-VP60GC : Middle East model**

**NV-VP60GCS: Asia, Malaysia model**

**THIS UNIT IS INTENDED FOR USE IN TROPICAL CLIMATES.**

### About descriptions in these Operating Instructions

- Pages to be referred to are indicated as (→ ○○).

# VHS Deck and Video Cassette Information

## ■ Surge Absorber

For further protection, this product is equipped with new surge absorbing circuits which prevent damage due to power surges caused by lightning.

- This function may not be effective for surges by direct lightning.

## ■ Crystal View Control

The crystal view control function ensures the optimum picture quality so that you get the best picture automatically.

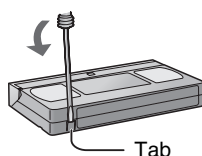
## ■ Longrun Head System

This longrun head system enables approximately 8,000 hours of recording/playback with high quality images. Newly developed head cylinder with narrower head windows and tapered cylinder design effectively protect heads from dust and prevents head clogging. Plus, "Alumina" Head Cleaner enhances the cleaning efficiency.

- Based on in-house tests with Panasonic video cassettes. Actual head life may vary according to conditions of use, tape type, temperature, humidity, etc.

## ■ Tapes

- You can use tapes with the VHS and S-VHS marks, but this unit is unable to make full use of the characteristics of S-VHS tapes.
- Break the tape's tab to prevent accidental erasure. Cover the hole with a double layer of adhesive tape when you want to use the tape for recording again.



## ■ S-VHS Quasi Playback (SQPB)

It is possible to playback video cassettes recorded in the S-VHS system.

- Some picture noise may occur depending on the type of tape used.
- It is not possible to fully obtain the high resolution that S-VHS is capable of.

It is not possible to record in the S-VHS with this unit.

## ■ Dirt on the video heads

If the video heads get dirty, pictures will not be recorded or played back clearly. (See the following conditions.)

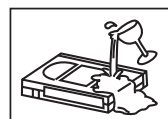


If this happens, insert and eject a cassette 5–10 times successively to remove the dirt from the video heads.

If the problem still persists after performing the above, contact a service personnel.

Heads mainly become dirty because of scratched or dirty video cassettes and operating the unit where the temperature is high or it is humid, dusty, etc.

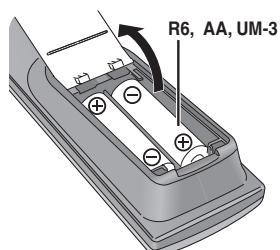
Never use video cassettes that liquids have been spilled on or that are very badly damaged. The heads will become dirty and the unit will malfunction.



## The Remote Control

### ■ Installing the batteries

Insert the batteries with the polarity (+ and -) correctly aligned.

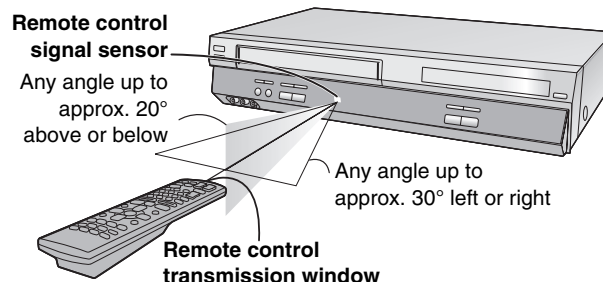


#### Notes:

The service life of the batteries is approximately 1 year. However, it varies considerably depending on the frequency of use.

- When the batteries are exhausted, remove them immediately and dispose of them correctly.
- Do not mix an old battery with a new battery.
- Do not mix different battery types, i.e. Alkaline and Manganese.
- Do not use rechargeable batteries.
- Do not heat or short-circuit the batteries.
- When the remote control is not going to be used for a long time, take out the batteries and store them in a cool, dry place.

### ■ Using the remote control (operation range)



- The remote control can be used to operate the unit up to approximately 7 meters in front, up to approx. 30° left or right and up to approx. 20° above or below the remote control signal sensor. (However, this operation range will vary depending on the surrounding brightness.)
- If you place the unit in a rack, the operation range may become shorter depending on the thickness and color of the rack's glass door.
- Do not place any obstacles between the unit and the remote control.
- If the remote control signal sensor is exposed to direct sunlight or strong light from an inverter fluorescent lamp, you may not be able to use the remote control to operate the unit.

## Accessories



Please check and identify the supplied accessories.





- ☐ 1 pc. Remote Control (N2QAYB000006)
- ☐ 1 pc. RF Coaxial cable
- ☐ 2 pcs. "R6" size batteries

- ☐ 2 pcs. AC Mains Lead (for NV-VP60GC)
- ☐ 1 pc. AC Mains Lead (for NV-VP60GCS)
- ☐ 1 pc. Audio/Video cable




# Disc Information

## Discs that can be played

Recorded Discs (✓: Available, ✕: Not Available)

Disc Logos	Indication	Recorded on a DVD video recorder, etc.		Recorded on a Personal computer, etc.					Necessary to finalize <sup>※1</sup>
		DVD-VR <sup>※2</sup>	DVD-V	WMA (→ 6)	MP3 (→ 6)	JPEG (→ 6)	MPEG4 (→ 6)	DivX (→ 6)	
DVD-RAM 		✓	—	✕	✓	✓	✓	✓	Not necessary
DVD-R 		✓	✓	✕	✓	✓	✓	✓	Necessary
DVD-R DL <sup>※3</sup> 		✓ <sup>※4</sup>	✓	✕	✕	✕	✕	✕	Necessary
DVD-RW 		✓	✓	✕	✓	✓	✓	✓	Necessary
+R/+RW		✕	(✓) <sup>※5</sup>	✕	✕	✕	✕	✕	Necessary
+R DL		✕	(✓) <sup>※5</sup>	✕	✕	✕	✕	✕	Necessary
CD-R/RW		—	—	✓	✓	✓	✓	✓	Necessary <sup>※6</sup>

### Commercial Discs

Disc Logos	Indication	Remarks
DVD-Video 	DVD-V	A disc that contains high quality video and audio.
CD 	CD <sup>※7</sup>	—
Video CD 	VCD <sup>※8</sup>	Including SVCD (Conforming to IEC62107).

※1 A process that allows the disc to be played on compatible equipment. To play a disc that is displayed as "Available" on this unit, the disc must first be finalized on the device it was recorded on.

※2 Discs recorded on DVD video recorders or DVD video cameras using Version 1.1 of the Video Recording Format (a unified video recording standard).

※3 The DVD-R DL (→ 24) is a new DVD standard approved at the DVD Forum, January 2005. When playing back a title recorded on both layers, the video and the audio may briefly stop when the unit is switching layers.

※4 Discs recorded on DVD video recorders or DVD video cameras using Version 1.2 of the Video Recording Format (a unified video recording standard).

※5 Recorded using a format different from DVD-Video Format, therefore some functions cannot be used.

※6 Closing the session will also work.

※7 This unit can play audio recorded in the CD-DA, SVCD (conforming to IEC62107) format recorded on a CD-R/RW. Finalize<sup>※1</sup> the disc after recording.

※8 This unit can play video recorded in the Video CD format recorded on a CD-R/RW. Finalize<sup>※1</sup> the disc after recording.

- Use discs with the above logos and that conform to specifications. The unit cannot play other discs correctly. Do not use irregularly shaped discs (e.g. heart-shaped), as these can damage the unit.
- DVD-RAM that can be played on this unit are those recorded with DVD video recorders, DVD video cameras, personal computers, etc. using Version 1.1 of the Video Recording Format (a unified video recording standard).
- Remove the discs from their cartridges before use and return them when finished. Ensure that the labels of the disc and the cartridge face the same way.
- Some parts of the disc, for example where one programme ends and another begins, may not be played smoothly.

#### HighMAT™ discs

This unit is compatible with HighMAT™ discs containing WMA, MP3 and/or JPEG files.

#### Note:

- It may not be possible to play the above discs in all cases due to the type of disc, the condition of the recording, the recording method or how the files were created (→ 6).



## Disc Information

### WMA, MP3, JPEG, MPEG4 and DivX files that can be played

#### Playable WMA\* format

Features	WMA has the same sound quality as MP3 with a file size that is smaller than that of MP3.
Indication	<b>WMA</b>
Extension	“.WMA” or “.wma”
Bit rate	between 48 kbps and 320 kbps

#### Playable MP3\* format

Features	MP3 is an audio compression method that compresses audio to approximately one-tenth of its size without any considerable loss of audio quality.
Indication	<b>MP3</b>
Extension	“.MP3” or “.mp3”
Bit rate	between 32 kbps and 320 kbps
Compatible compression rate	DVD-RAM, DVD-R/RW: Except for 8 kHz, 16 kHz, 32 kHz. CD-R/RW: 8 kHz, 11.02 kHz, 12 kHz, 16 kHz, 22.05 kHz, 24 kHz, 32 kHz, 44.1 kHz and 48 kHz.
Remarks	<ul style="list-style-type: none"> <li>• This unit is not compatible with ID3 Tags. (→ 42)</li> <li>• See (Notes → 28)</li> </ul>

#### Playable JPEG\* format

Features	JPEG is a system used for compressing/decoding color still pictures. The benefit of JPEG is less deterioration in picture quality considering the degree of compression.
Indication	<b>JPEG</b>
Extension	“.JPG”, “.jpg”, “.JPEG” or “.jpeg”
Picture Resolution	between 160×120 and 6144×4096 pixels (sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4)
Remarks	<ul style="list-style-type: none"> <li>• Recorded using the DCF (Design rule for Camera File system) standard Ver 1.0.</li> <li>• See (Notes → 28)</li> </ul>

#### Playable MPEG4\* format

Features	MPEG4 is a compression system for use on mobile devices or a network, that allows highly efficient recording at a low bit rate.
Indication	<b>MPEG4</b>
Extension	“.ASF” or “.asf”
Remarks	<ul style="list-style-type: none"> <li>• Recorded with the Panasonic SD multi cameras or DVD video recorders [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system].</li> <li>• See (Notes → 28)</li> </ul>

#### Playable DivX\* format

Features	DivX is a codec that compresses video files without any considerable loss of video quality.
Indication	<b>DivX</b>
Extension	“.DIVX”, “.divx”, “.AVI”, or “.avi”
Remarks	<ul style="list-style-type: none"> <li>• Created using DivX ver.3.11, 4.x, 5.x (DivX video system/MP3 or Dolby Digital audio system).</li> <li>• See (Notes → 28)</li> </ul>

\* The total combined maximum number of recognizable audio, picture and video contents and groups: 4000 audio, picture and video contents and 400 groups

### Discs that cannot be played

DVD-ROM, CD-ROM, CDV, CD-G, Blu-ray, CVD, SACD, Photo CD, Version 1.0 of DVD-RW, DVD-RAM that cannot be removed from their cartridge, 2.6 GB and 5.2 GB DVD-RAM, “Chaoji VCD” available on the market including CVD, DVCD and SVCD that do not conform to IEC62107, etc.

※(DVD-Audio/Video disc will play as DVD Video format, depending on disc compatibility.)

### Region number supported by this player

Region numbers are allocated to DVD players and software according to where they are sold.

The region number of the unit is “2” for the Middle East and “3” for Asia.

The unit will play DVD-Video marked with labels containing “2” for the Middle East and “3” for Asia or “ALL”.

Examples:

For the Middle East



For Asia



### Playing DVDs and Video CDs

The producer of these discs can control how they are played so you may not always be able to control play as described in these operating instructions (for example if the play time is not displayed or if a Video CD has menus). Read the disc's instructions carefully.

### Video systems

- This unit can play PAL and NTSC, but your TV must match the system used on the disc.
- PAL discs cannot be correctly viewed on an NTSC television.
- This unit can convert NTSC signals to PAL 60 for viewing on a PAL television (Video—NTSC Disc Output → 37).
- Output is interlace (576i), when playing PAL discs.

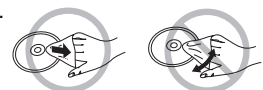
### Disc structure

The disc structure and the labels given to the items on the disc depend on the disc type.

- Track:** The smallest division on a CD and a Video CD, or a single WMA/MP3 file.
- Chapter:** The smallest division on DVD-Video.
- Group:** Equivalent to a folder or an album on a data disc.
- Title:** The largest division on a DVD-Video, usually an entire movie.
- Programme:** The division on a DVD-RAM equivalent to a single recording.
- Picture:** A single JPEG file.
- Play list:** The largest grouping on a HighMAT disc, or a group of scenes on DVD-RAM.
- Scene:** DVD-RAM programme sections specified and grouped into a play list on a DVD video recorder.
- Content:** Covers, tracks and pictures on HighMAT discs.

### To clean discs

Wipe with a damp cloth and then wipe dry.



### Handling precautions

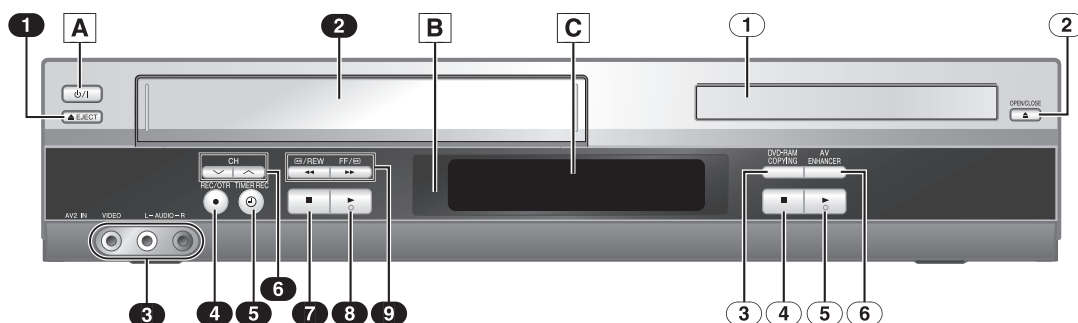
- Do not write on the label side with a ball-point pen or other writing instrument.
- Do not use record cleaning sprays, benzene, thinner, static electricity prevention liquids or any other solvent.
- Do not attach labels or stickers to discs (do not use discs with exposed adhesive from tape or left over peeled-off stickers).
- Do not use scratch-proof protectors or covers.
- Do not use discs printed with label printers available on the market.



# Control Reference Guide

Operations in these instructions are described mainly for the remote control, but you can do the operations on the main unit if the controls are the same.

## Main Unit



### Common section

#### A Power button (⏻/⏻)

- Press [⏻/⏻] to switch this unit from on to standby mode or vice versa. In standby mode, the unit is still connected to the main AC power.

#### B Infra-red Remote Control Receiver Window

#### C Display

### VHS section

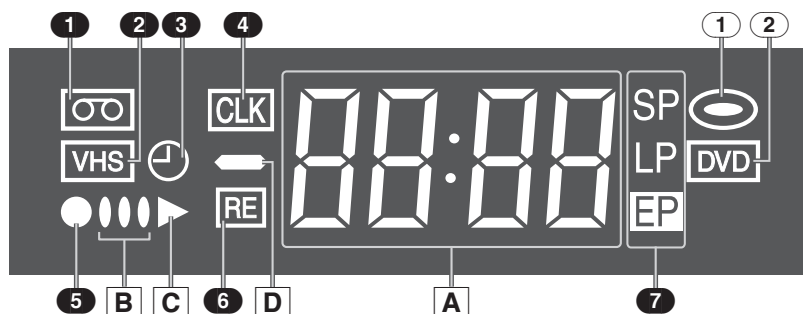
- ① Tape Eject button (⏏EJECT) ..... (→ 14)
- ② Cassette Compartment
- ③ AV2 IN (AUDIO/VIDEO) Sockets ..... (→ 17)
- ④ Recording/One-Touch Recording button (●REC/OTR) ..... (→ 16, 17)
- ⑤ Timer Recording button (⌚ TIMER REC) ..... (→ 18)

- ⑥ Channel Down/Up buttons (∇/▲CH)..... (→ 12, 15, 16)
- ⑦ ■ Stop button ..... (→ 14)
- ⑧ ▶ Play button ..... (→ 14)
- ⑨ Rewind/Fast-Forward buttons (◀▶/REW FF/▶) ..... (→ 14)

### DVD section

- ① Disc Tray
- ② Disc Tray Open/Close button (⏏OPEN/CLOSE)..... (→ 23)
- ③ DVD-RAM Copying button (DVD-RAM COPYING)..... (→ 38)
- ④ ■ Stop button ..... (→ 23)
- ⑤ ▶ Play button ..... (→ 23)
- ⑥ AV Enhancer button (AV ENHANCER) ..... (→ 26)

## The Unit's Display



### Common section

#### A Counter Display

- Current time/VHS recording and play counter/Disc play counter/Miscellaneous messages, etc.

#### B Running Indicator

- Lights up when the VHS or DVD section is active.
- Flashes when the cassette is paused or the disc is stopped.
- One bar lights up when the disc is paused.
- The bars flash one at a time when the cassette or disc is playing.

#### C Play Indicator

- Lights up when playing a cassette or disc.

#### D Minus Indicator

- Lights up when the VHS tape counter passes the zero mark on the counter display or when the remaining time display is selected on some discs (– 0:00).

#### ② VHS Selector Indicator

- Lights up when the VHS section is active.

#### ③ Timer Programme Recording Indicator

#### ④ Clock Indicator

- Lights up during the clock display.

#### ⑤ Recording Indicator

- Lights up during recording, copying or timer recording.

#### ⑥ Remaining Time Indicator (→ 17)

#### ⑦ Recording Mode Indicator (→ 16)

### DVD section

#### ① Operation Status of DVD Section

- Lights up when a disc is inserted.

#### ② DVD Selector Indicator

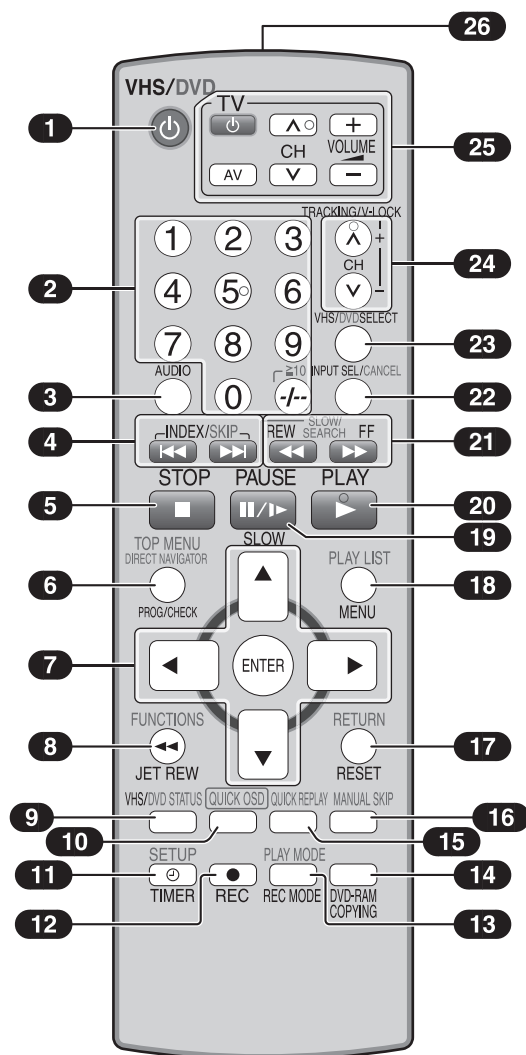
- Lights up when the DVD section is active.

#### Note:

- “⏏” or “⏏” indicator lights up all the time if a cassette or CD is inserted.



## Remote Control



- 1 VHS/DVD Power button (⏻)..... (→ 14, 23)
- 2 Numeric buttons (0-9, -, /, ≥10)..... (→ 16, 24, 26)
- 3 Audio button (AUDIO)..... (→ 22, 30)
- 4 Index Search, Skip buttons (◀◀ ▶▶) INDEX/SKIP)..... (→ 19, 23)
- 5 Stop button (■)STOP)..... (→ 14, 23)
- 6 Timer Programme and Check, Top Menu/Direct Navigator button (PROG/CHECK, TOP MENU/DIRECT NAVIGATOR)..... (→ 18, 28, 29)
- 7 Cursor, Enter buttons (▲▼◀▶, ENTER)..... (→ 13, 20, 34, 36)
- 8 Jet Rewind, Functions/On-Screen Menu button (◀◀JET REW, FUNCTIONS)..... (→ 14, 34)
- 9 VHS/DVD Status button (VHS/DVD STATUS)..... (→ 22, 23)
- 10 Quick OSD button (QUICK OSD)..... (→ 27)
- 11 Timer Recording, DVD Setup menu button (⌚TIMER, SETUP)..... (→ 18, 36)
- 12 Recording button (●REC)..... (→ 16)
- 13 Recording Mode, Play Mode button (REC MODE, PLAY MODE)..... (→ 16, 27)
- 14 DVD-RAM Copying button (DVD-RAM COPYING)..... (→ 38)
- 15 Quick Replay button (QUICK REPLAY)..... (→ 26)
- 16 Manual Skip button (MANUAL SKIP)..... (→ 27)
- 17 Reset, Return button (RESET, RETURN).... (→ 13, 18, 22, 34)
- 18 Menu, Play List button (MENU/PLAY LIST)..... (→ 13, 20, 28)
- 19 Pause/Slow button (⏸/▶PAUSE, SLOW)..... (→ 14, 23)
- 20 Play button (▶PLAY)..... (→ 14, 23)
- 21 Rewind/Fast-Forward, Slow/Search buttons (◀◀▶▶REW/FF, SLOW/SEARCH)..... (→ 14, 23)
- 22 Input Select/Cancel button (INPUT SEL/CANCEL)..... (→ 34, 38)
- 23 VHS/DVD Select button (VHS/DVD SELECT)..... (→ Left)
- 24 Tracking/V-Lock and Channel Up/Down buttons (±-TRACKING/V-LOCK, ▲▼CH)..... (→ 15, 16)
- 25 TV Operation buttons  
TV Power button (⏻)  
TV Input Mode Selector (AV)  
TV Channel Up/Down buttons (▲▼CH)  
TV Volume Up/Down buttons (±-VOLUME)
- 26 Infra-red Transmitter

### ■ [VHS/DVD SELECT] button

Press this button to select either VHS or DVD. The selector indicator on the unit's display lights up to show the selected section. (→ 7)

#### [VHS SELECT]

- Switch the player mode to VHS.



#### [DVD SELECT]

- Switch the player mode to DVD.





# Connections

When the unit is turned on after connecting the aerial cable and the mains lead, Plug in Auto Tuning starts automatically.

## Basic Connections

The following connections are required to record on a video cassette and playback a video cassette/discs through the TV.

- Refer to the TV's operating instructions.
- Turn the TV off and disconnect its AC mains lead.

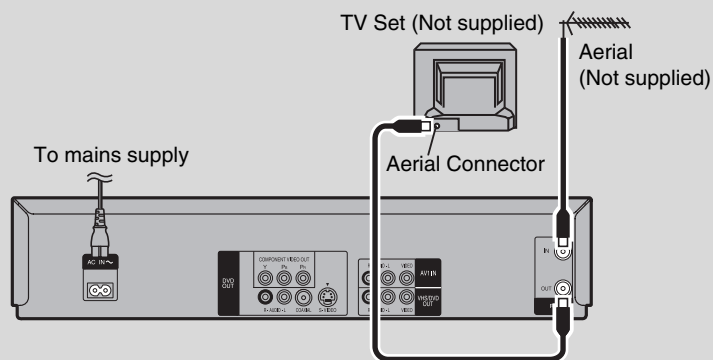
### Note:

The included AC mains lead are for use with this unit only. Do not use them with other equipment.

### ■ For NV-VP60GC

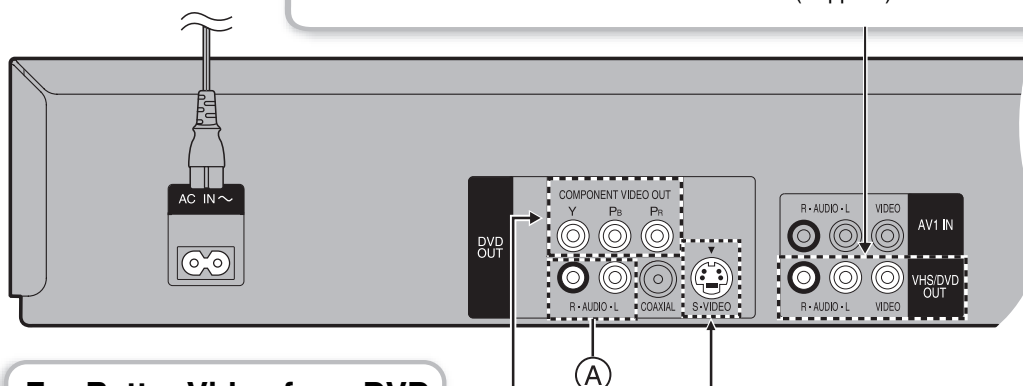
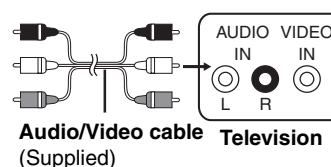
2 AC mains leads are supplied for this unit. Use one of the supplied AC mains leads of which the plug fits into your outlet.

3 pin mains plug is for Saudi Arabia.

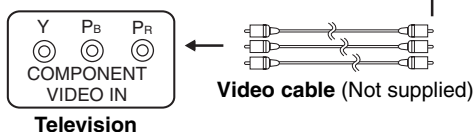


## Audio/Video Output Sockets

- Set the RF output channel of the unit to "—" (RF OFF) (→ 12).
- Connect Audio/Video cables directly to your TV. The video signals on DVDs and video tapes have copyright protection. The video may not be shown correctly if you connect through an A/V selector or other equipment.



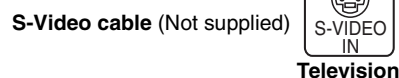
## For Better Video from DVD



### COMPONENT VIDEO terminal (progressive out)

These terminals can be used for either interlace or progressive output and provide a clearer picture than the S-VIDEO terminal. Connection using these terminals outputs the colour difference signals (Pb/Pr) and luminance signal (Y) separately in order to achieve high fidelity in reproducing colours.

- The description of the component video input terminals depends on the TV or monitor (e.g. Y/Pb/Pr, Y/B-Y/R-Y, Y/Cb/Cr). Connect to terminals of the same colour.



### S-VIDEO terminal

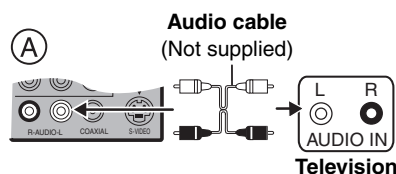
The S-VIDEO terminal achieves a more vivid picture than the VIDEO OUT terminal by separating the chrominance (C) and luminance (Y) signals (Actual results depend on the TV).

- Connect to a different terminal group (e.g. "VIDEO 2") than that you used for the connection through this unit's VHS/DVD OUT terminal. Picture from the VHS section will not appear when you use the same group input terminal connections because the S-Video terminal input takes precedence.

- These connections are for the DVD section only. Carry out the Basic Connections described above to view video from the VHS section.

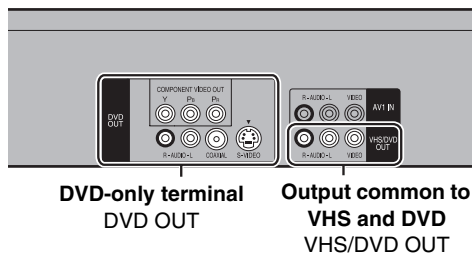
- When making this connection, ensure that you connect the Audio cables (not supplied) to the corresponding audio input terminals on the TV.

- You may need to change the video-input mode on the TV to view video from the VHS and DVD sections. Read your TV's operating instructions for details.



## Connections

### The output terminal common to VHS and DVD and the one exclusively for DVD



For the VHS/DVD OUT terminal, VHS and DVD outputs can be switched or it can be automatically switched on to the output side that has started playing back. The DVD OUT terminal can only output the DVD signal.

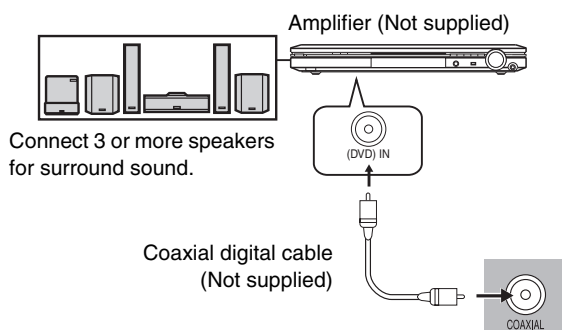
#### Notes:

- When Video is switched to DVD or vice versa, the audio volume may suddenly increase or decrease. This is because when the audio output of this unit is connected to the TV, etc., the audio output of the DVD is generally lower.
- When you increase the volume level to playback DVD audio, reduce it when playback is finished.

## To Enjoy Sound through Other Audio Equipment

You can enjoy the powerful movie theater and hall-like sound available with multiple channel audio found on DVDs by connecting an amplifier and speakers.

### Digital connection



#### ◇ To enjoy multi-channel surround sound

Connect an amplifier with a built-in decoder or a decoder-amplifier combination.

Change the settings in the Setup menu (→ 33, 37).

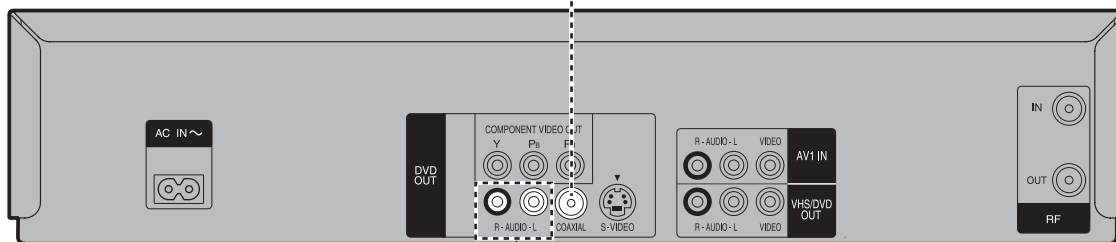
You can only use DTS Digital Surround decoders that are compatible with DVD.

- Turn the "Advanced Surround" function "Off" (→ 31).

#### ◇ To enjoy stereo or Dolby Pro Logic

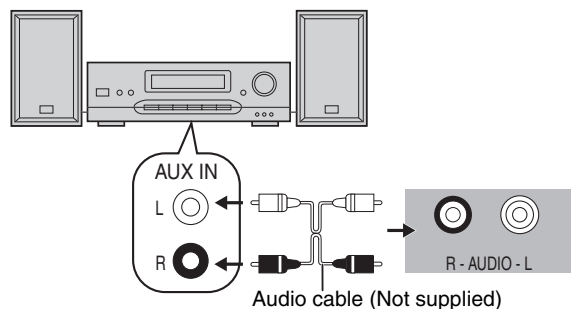
Connect a digital amplifier or system component.

Change the settings in the Setup menu (→ 33, 37).



### Analogue connection

Amplifier (Not supplied) or system component (Not supplied)



#### ◇ To enjoy stereo or Dolby Pro Logic

Connect an analogue amplifier or system component.

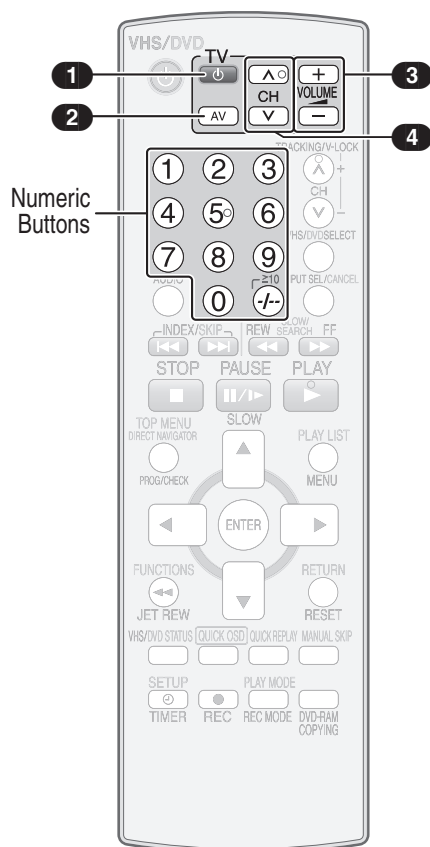
Change the settings in the Setup menu (→ 33, 37).

The VHS/DVD OUT audio terminals can also be connected.

#### Note:

- Before purchasing a coaxial digital cable (not supplied), check the terminal shape of the equipment to be connected.

# Operating the TV



## TV OPERATION

Turn on the TV.

- 1 TV Power button (⏻)**
  - Switch the TV from on to standby mode or vice versa. On some TVs, with this button it is only possible to turn it to standby mode (OFF). In this case, try to turn the TV on with the following button: [**^vCH**] **4**
- 2 TV Input Mode Selector button (AV)**
  - To select the desired AV input on the TV.
- 3 TV Volume Up/Down buttons (— **+VOLUME**)**
  - To adjust the volume of the TV.
- 4 TV Channel Up/Down buttons (**^CH**)**
  - To select the desired programme position (TV station) on the TV.

## TV Maker Setting

You can operate the TVs of the manufacturers listed below with the remote control after setting it.

**[1] Refer to the chart below for the code of your TV.**

**[2] Aim the remote control at the TV.**

**While pressing [**⏻**] **1**, use the numeric buttons to enter the two-digit code.**

Example: "1"; [0]→[1]

**[3] Check whether the TV can be operated properly.**

- Test by turning on the TV and changing channels. Repeat the procedure until you find the code that allows correct operation.
- When a manufacturer has multiple codes in the following chart, try entering other codes if the TV operations cannot be performed properly, and then select the optimal code.

### Notes:

- If you are using a Panasonic TV, this setting has already been made, you do not need to perform the above procedure. However, this remote control may not work on some Panasonic TVs.
- Some TV models cannot be operated by this remote control (including all TVs non-remote compatible).

Brand	Code
Panasonic/National	01-04
SONY	05
TOSHIBA	06
JVC	07
HITACHI	08
mitsubishi	09, 10
SHARP	11
PHILIPS, SAMSUNG	12
NEC	13
SANYO	14
GOLDSTAR/LG	15, 16
SAMSUNG	17, 18
SANYO	19

# Tuning the TV to Your Unit

The unit supplies a signal to the TV via the RF coaxial cable on channel E21–E69. It is possible to view the unit's picture on your TV in the same way that you watch TV broadcasts. The unit is fitted with its own tuner (just like a normal TV) and can be preset to receive up to 99 TV broadcast stations.

- Press [VHS SELECT] (→ 8).

◇ If you have connected the unit to the TV through the audio/video output sockets

You do not need to follow the procedure below. To view the pictures from the unit, set to the AV mode on the TV with [AV].

## Plug in Auto Tuning

When the unit is turned on after connecting the aerial cable and the mains lead for the first time, tuning starts automatically.

- If the unit is turned on with the aerial not connected, all channels are skipped.

**1 Press [VHS] to turn on this unit.**

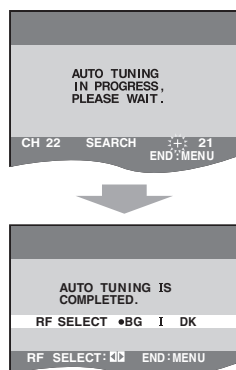
**2 Set the TV to an unused position for the unit viewing channel.**

- Tune the TV until the display shown on the right appears. Refer also to the TV's instructions regarding tuning.
- Set "RF SELECT" by pressing [◀▶] to select the colour TV system used by the TV set to be connected.

BG: PAL B.G./SECAM B.G

I: PAL I

DK: PAL D/SECAM D.K.K1



**3 Press [MENU].**

## To cancel Auto Tuning halfway through

Auto Tuning will stop halfway by turning the unit off, pressing [MENU], playback or power failure.

◇ If Auto Tuning stops halfway by turning the unit off, playback or power failure

- Disconnect the mains lead and then reconnect it.
- Turn on the unit. Plug in Auto Tuning restarts.

◇ To set the channels manually (→ 20)

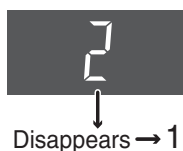
## To restart Plug in Auto Tuning

- Turn the unit on.
- Make sure there is no video cassette in the unit.

**1) Keep both [VCH] and [ACH] on the unit pressed simultaneously for 3 seconds or more until the channel on the unit's display changes to 1.**

**2) Disconnect the mains lead and then reconnect it.**

**3) Turn on the unit. Plug in Auto Tuning restarts.**



## To Change the RF Output Channel

You can change the RF output channel, for example, when interference occurs on the picture after tuning.

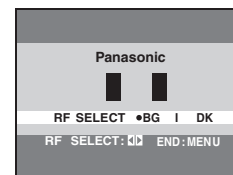
**[1] Press [MENU] for 5 seconds or more.**



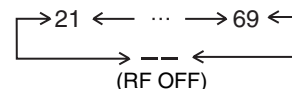
**[2] Press [ACH] or [VCH] to select the channel (E21–E69).**

- Each time you press [ACH] or [VCH], (→ below).
- Set to "—" (RF OFF) when you use the Audio/Video cable for the connection.
- You can also use the numeric buttons.

Example: "28"; [2]→[8]



**[3] Retune your TV to the new RF channel for the unit.**



**[4] Press [MENU] to exit the setting mode.**

### Note:

- Even if the RF output channel has been changed, it is not necessary to perform Auto Tuning.

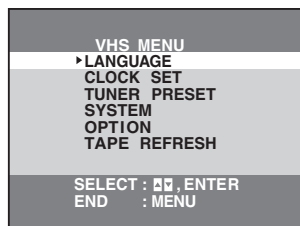
# Setting Up for VHS and DVD Quick Setup

Make basic settings for VHS. These settings are retained in the memory until they are changed, even if the unit is turned off.

- Select the unit viewing channel (or the AV input) on the TV.
- Turn on the unit.
- Press [VHS SELECT] (→ 8).

## Common procedures

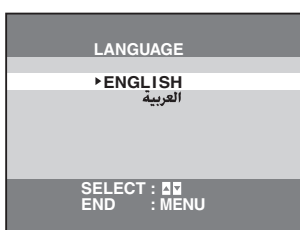
- 1 Press [MENU].
- 2 Press [▲▼] to select the menu.
- 3 Press [ENTER].



## Language

Select the language for these menus on screen displays.

- [1] Press [▲▼] to select the desired language.
- [2] Press [MENU] twice to clear the on-screen display.



## Clock Set

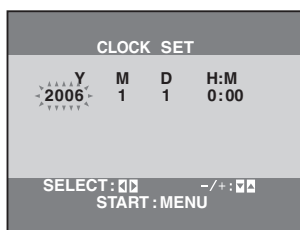
The clock operates for at least 3 years on its backup system in the event of power failure. After 3 years, clock back up can only be guaranteed for a maximum of 1 hour.

- [1] Set each item with [▲▼▶].

Press [◀] to return to the previous item.

At the set time (H:M) point:

- When [▲▼] is kept pressed, the indication changes in 30 minute steps.
- There is no need to press [▲▼] continuously.
- This is a 24-hour clock.



- [2] Press [MENU] to start the clock and exit the setting screen.

## Time Reset Function

If the clock is less than 2 minutes early or late, it can easily be reset to the proper time.

Example: Resetting the clock to 12:00

- 1) Display the "CLOCK SET" screen.
- 2) When the current clock display on the unit is between 11:58 and 12:01, press [MENU] as soon as it is 12:00. This will reset the time to 12:00.

Make basic settings for DVD. The QUICK SETUP screen assists you to make necessary settings such as Menu Language (→ 37) and TV Aspect (→ below).

- Select the unit viewing channel (or the AV input) on the TV.
- Turn on the unit.
- Press [DVD SELECT] (→ 8).

- 1 Press [SETUP].
- 2 Follow the messages and make the settings using [▲▼◀▶] and [ENTER].

e.g. NV-VP60 GC



◇ To change these settings later

Select "QUICK SETUP" in the "Others" tab (→ 37).

◇ To return to the previous screen

Press [RETURN].

## Notes:

- The "QUICK SETUP" screen only appears by pressing [SETUP] when the unit is turned on for the first time. If the settings are not completed in "QUICK SETUP", the "QUICK SETUP" screen will appear whenever [SETUP] is pressed. To avoid the reappearance of the "QUICK SETUP" screen, or to abort the use of "QUICK SETUP", select "NO" in the "Would you like to use QUICK SETUP?" screen.
- All settings will return to default by selecting "Re-initialise Setting" in the "Others" tab. To reset the DVD QUICK SETUP, follow the above steps 1 and 2.

## TV Aspect

Select "4:3" (regular) or "16:9" (widescreen) to suit your TV. If you have a regular 4:3 TV, you can also select how video on some discs are shown.

- 4:3 Pan & Scan (Initial Setting)

Widescreen software is expanded to fill the screen of a 4:3 aspect TV (unless prohibited by the producer of the disc).

4:3 Pan & Scan



- 4:3 Letterbox

Widescreen software is shown in the letterbox style on a 4:3 aspect TV.

4:3 Letterbox



If you have a wide-screen TV (16:9), you can select the style with the TV's screen mode function.

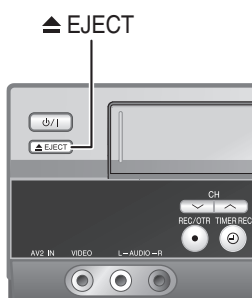
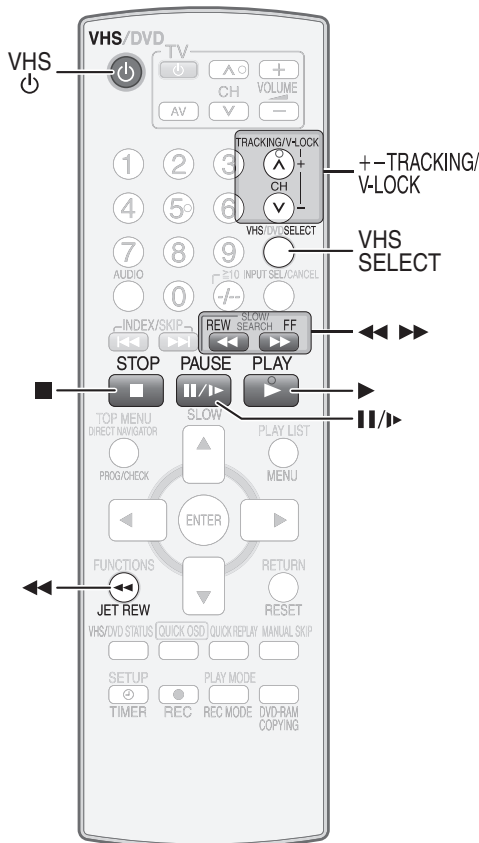
# Playback

- Select the unit viewing channel (or the AV input) on the TV.
- Press [**VHS**] to turn on the unit.
- Press [**VHS SELECT**] (→ 8).

## 1 Insert a recorded video cassette.

## 2 Press [**▶PLAY**].

- Play starts automatically if you insert a tape with the tab removed (Tapes → 4).



### VHS Select



Press this button to select VHS. Check if VHS selector indicator is displayed on the unit's display (→ 7, 8).

### Play



If you press and hold [**▶PLAY**] for 5 seconds or more, you can playback the recorded part on the tape repeatedly. (→ below)  
The "R▶" indication appears on the TV screen.  
Press [**■STOP**] to cancel (it also cancels if you play, pause, cue, or review).

### Pause



Press this button during playback. Press [**▶PLAY**] or [**⏮/▶**] to restart.

### Slow

Press and hold for 2 seconds or more. Press [**▶PLAY**] to restart.

### Rewind/ Fast-forward (while stopped)

Press these buttons in the stop mode. Press [**■STOP**] to cancel.

### Cue/ Review (during play)



During playback, press or press and hold these buttons. If you press and hold these buttons, playback restarts by releasing them.

### Jet Search

During playback, press these buttons twice. You can increase Cue/Review search speed.

### Jet Rewind



Press this button to obtain a Higher Speed Rewind.  
The "J. REW" indication appears on the TV screen (except when the remaining tape time indication appears).

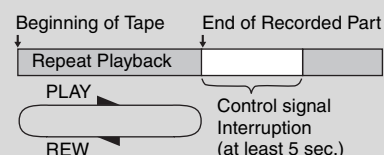
### Eject



Press this button to eject the video cassette.  
Or, keep pressing [**■STOP**] on the remote control for at least 3 seconds.

### Repeat Playback

At the end of the programme, the tape rewinds to the beginning of the programme and plays it again (it only works if there is at least 5 seconds blank at the end of the programme). This repeats until you cancel it.



### ◇ To restart play

Press [**▶PLAY**].

### Note:

- To adjust tracking control manually ([**±**—TRACKING/V-LOCK]) (→ 15)



## Other convenient functions

- When the unit is off, an inserted video cassette can be played back by pressing **[▶PLAY]**.
- You can eject a video cassette when the unit is in standby mode. The unit switches back to standby mode after the video cassette is ejected.
- When the end of the video cassette is reached, this unit automatically rewinds it to the beginning.

### Notes:

- Jet Search, cue, review or slow playback are automatically released after 10 minutes and pause is automatically released after 5 minutes.
- The tape counter does not appear during Jet Rewind.
- Depending on the video cassette or the operating conditions, Jet Rewind may not work or the speed may increase only slightly.
- When using a playback function other than normal playback, horizontal noise bars may appear in the picture, the colour of the picture may be unstable or the picture may be otherwise distorted.
- When you playback a video cassette recorded in the LP mode, the picture may become monochrome. (→ 16)
- When you playback a video cassette recorded in the EP mode, the picture and the sound may be unstable. However, these are not malfunctions. (→ 16)
- During timer recording, OTR and fast-forwarding do not work.

## Adjusting the Playback Picture

### Manual tracking

The unit usually makes tracking adjustments, but you may need to do it manually if noise appears on a tape recorded on other equipment.

**During play, press **[+TRACKING/V-LOCK]** or **[-TRACKING/V-LOCK]**.**

Repeat until the noise disappears.

### Vertical locking adjustment

Adjust the vertical to stop the picture jiggling while paused.

**While paused, press **[+TRACKING/V-LOCK]** or **[-TRACKING/V-LOCK]**.**

Repeat until the jiggling stops.



### ◇ To return to auto tracking

Press both **[+TRACKING/V-LOCK]** and **[-TRACKING/V-LOCK]** simultaneously.

### ◇ To remove the noise from a paused picture

Start slow play and then adjust the tracking.

### Notes:

- This may not work with some TV models and tapes.
- You can also adjust the tracking and vertical with **[▼CH]** or **[▲CH]** on the unit.

## NTSC Playback

Tapes recorded in the NTSC system can be played back via a PAL system TV.

- To record in the NTSC system, set "NTSC INPUT SELECT" (OPTION → 21).
- Select "onPALTV" in "NTSC PB SELECT" to view the NTSC recording in colour (OPTION → 21).
- On some TVs, the playback picture may roll up or down. If your TV has V-HOLD control or an equivalent function, use it to adjust the picture.

### Note for only NTSC Playback on PAL system TV

This function is designed to allow only the playback of tapes recorded by NTSC signals on a PAL system TV. The NTSC signal is not completely converted to a PAL signal. For this reason, images played back with this function cannot be recorded correctly on other VHS.

# Recording

- Select the unit viewing channel (or the AV input) on the TV.
- Press **[VHS SELECT]** (→ 8).
- Check that the clock is set to the correct time. If it has not been set, refer to page 13.

## 1 Insert a video cassette with an intact erasure prevention tab.



## 2 Press **[^CH]** or **[vCH]** to select the TV station.

- If you keep pressing these buttons, the channels changes quickly.
- You can also select the channels with the numeric buttons.

Example: "5"; [5]  
 "15"; [- / -] → [1] → [5]



## 3 Press **[REC MODE]** to select the recording mode.

Each time you press the button:  
 SP → LP → EP → SP



## 4 Press **[●REC]** to start recording.



### ◇ To stop recording

Press **[■STOP]**.

### ◇ To interrupt recording

Press **[||/▶PAUSE]** during recording. Press it again to continue recording.

## Recording mode

SP: Provides standard recording time with optimum picture and sound quality.

LP: Provides double recording time with slightly reduced picture and sound quality.

EP: Provides triple recording time with slightly reduced picture and sound quality.

- When you playback a video cassette recorded in EP mode, the monaural sound may be unstable.
- When you start the recording in EP mode, the "EP" indication on the unit's display flashes for about 8 seconds.

## Notes:

- Even if the video cassette you use is labeled "S-VHS", it is not possible to record in the S-VHS with this unit. It records in VHS.
- You cannot change channels while recording. You can change channels while the recording is paused.
- When the recording is paused for more than 5 minutes, the unit returns to stop mode.

## Using another device while recording

You can watch another TV programme or play discs while recording. The recording will not be affected.

### ■ TV

- 1) Press **[^CH]** or **[vCH]** to select the desired TV programme.

### ■ DVD

- 1) While recording, press **[DVD SELECT]**.
- 2) Insert the disc and press **[▶PLAY]** to start play. (→ 23)

## One-Touch Recording (OTR)

You can start recording quickly and set a duration.

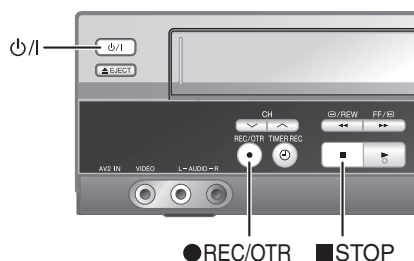
**During recording, press [●REC/OTR] on the unit repeatedly.**

Select the desired recording duration.

- Each time you press the button, the indication on the unit's display changes as follows:

Counter display (normal recording mode) → 30 (min) →  
60 (min) → 90 (min) → 120 (min) → 180 (min) →  
240 (min) → Current time (normal recording mode)

- The unit will automatically switch off when OTR is completed.



### ◇ To stop OTR at any time

Press [■STOP] or [P/I] (⏻VHS).

#### Notes:

- The OTR function works during normal recording only.
- When the tape reaches its end during OTR, the unit will turn itself off.

## Recording from an External Source

You can record from other video sources (VHS, camera, etc.).

- Connect the other equipment to this unit as shown. If audio output on the other equipment is monaural, use a stereo-monoaural conversion cable (not supplied).
- Insert a recorded video cassette with an intact erasure prevention tab.
- Set A1 or A2 with [INPUT SEL] to select the audio/video source required.

### [1] Press [▶PLAY].

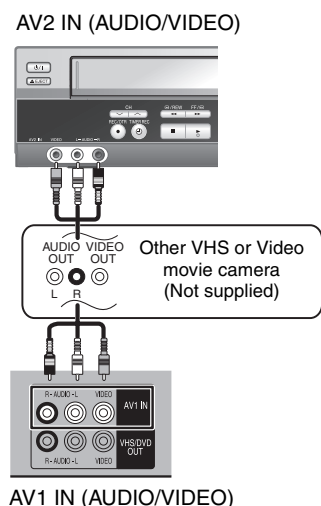
Find the recording start point.

### [2] Press [II/PAUSE], then press [●REC].

Put the unit in recording standby mode.

### [3] Start play on the other equipment.

### [4] Press [II/PAUSE] to start recording.



### ◇ To stop recording

Press [■STOP].

## Tape Refresh

You can delete all the contents of a video cassette (the picture and sound data).

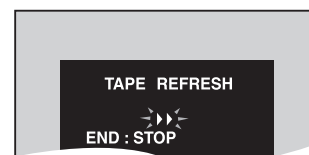
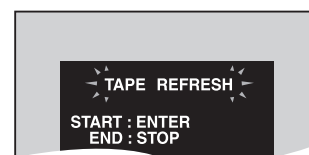
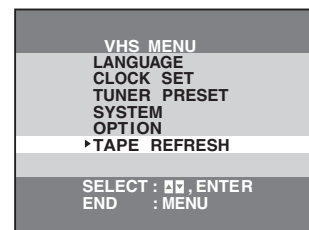
### [1] Insert the cassette that you want to refresh and press [MENU].

### [2] Press [▲▼] to select "TAPE REFRESH" and then press [ENTER].

### [3] Press [ENTER] for 2 seconds or more to start the tape refresh function.

The tape refresh function starts.

- The tape is rewound to the beginning and is then erased as it is fast-forwarded.
- When the end of the video cassette is reached, the unit automatically rewinds it to the beginning.



#### Note:

- When a video cassette with a broken erasure prevention tab is inserted, this function is not activated.

# Timer Recording

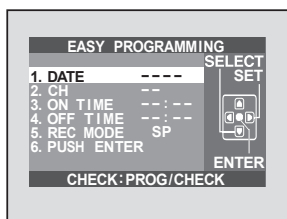
Up to 16 timer programmes, including weekly and daily programmes, can be recorded for up to one month in advance by setting the timer.

- Select the unit viewing channel (or the AV input) on the TV.
- Insert a video cassette with an intact erasure prevention tab (→ 4).
- Check that the clock is set to the correct time. If it has not been set, refer to page 13.
- Press [VHS SELECT] (→ 8).

## 1 Press [PROG/CHECK].

## 2 Press [◀ ▶] to set the date the TV programme will be broadcast and then press [▼].

- Current date (e.g. 17th)  
 ↓  
 The date before one month later (e.g. 16th)  
 ↓  
 Daily: SU-SA ↔ MO-SA ↔ MO-FR  
 ↓  
 Weekly: SU ↔ ... ↔ SA  
 (SU=Sunday, MO=Monday, TU=Tuesday, WE=Wednesday, TH=Thursday, FR=Friday, SA=Saturday)



## 3 Press [◀ ▶] to select the programme position of the desired TV station and then press [▼].

- Select "A1" or "A2" when recording from an external source (→ 17).
- You may also use [INPUT SEL] and numeric buttons to select the channel position.

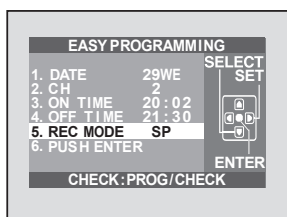
## 4 Press [◀ ▶] to set the starting time and then press [▼].

- When [◀ ▶] is kept pressed, the indication changes in 30-minute steps.

## 5 Press [◀ ▶] to set the ending time and then press [▼].

- When [◀ ▶] is kept pressed, the indication changes in 30-minute steps.

## 6 Press [◀ ▶] to set the desired Rec Mode and then press [▼].

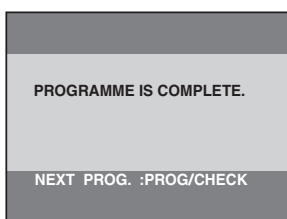


SP↔LP↔EP↔A\*↔SP

※Recording Mode Auto Change function (→ right)

- You may also use [REC MODE] to set the recording mode.

## 7 Press [⏸ TIMER] to switch this unit to the timer recording standby mode.



## To release the unit from timer recording standby

For example, if you want to record something else before the programme start time:

### Press [⏸ TIMER] to make "⏸" stop.

- Be sure to press [⏸ TIMER] again before the programme start time to put the unit on recording standby.

The timer recording only works if "⏸" is on.

## Recording Mode Auto Change Function

If a timer recording is performed in SP mode, this function automatically changes the recording mode if the unit determines that the remaining tape time is insufficient to record the entire programme.

If the remaining tape time is still not sufficient even in LP/EP mode, the programme cannot be recorded to the end.

### The recording mode will change as follows:

PAL system: SP → LP

NTSC system: SP → EP

- This function cannot change the recording speed to the EP mode for PAL system.

e.g. NTSC system (when using a 60-min tape)

Timer programming

1st programme (30 min)	2nd programme (60 min)	
Video tape		
30 min at SP	15 min at SP	45 min at EP

- The tape length must be set correctly (→ 21).
- Some tapes may not work correctly.
- If the recording speed changes during a timer recording, some picture distortion will occur at the point the speed changes.

## To Check and Cancel a Timer Programme

- This unit must be turned on or in timer recording standby mode.

### [1] Press [PROG/CHECK] twice.

- The Timer Programme List screen appears.

### [2] Press [PROG/CHECK] repeatedly to select the programme.

- Every time you press [PROG/CHECK], the cursor shifts down. You can also select the programme by pressing [▲ ▼].

DATE	CH	ON	OFF	
1 29SA	2	20:02	21:30	SP
2 SU-SA	25	10:30	11:00	A
3 SU	14	15:00	16:00	SP
4 19WE	5	22:15	23:30	EP
5 28FR	A1	20:02	21:30	SP
6 30SU	4	19:10	19:55	EP
7 ---	---	---	---	---
8 ---	---	---	---	---
SET: ⏸		END: MENU		

DATE	CH	ON	OFF	
1 29SA	2	20:02	21:30	SP
2 SU-SA	25	10:30	11:00	A
3 ---	---	---	---	---
4 19WE	5	22:15	23:30	EP

### [3] Press [RESET] to cancel.

### [4] Press [MENU] to exit the on-screen display.

### Notes:

- If timer recording is not completed (due to insufficient tape or cancellation by the user), the programmed timer recording data will be cancelled from the memory by 4 A.M. two days later. However, if the timer recording function is activated at that time, the programmed timer recording data will not be cancelled.
- After you cancel the programmed timer recording data, the current recording mode during the stop mode is displayed.
- If you turn off the power during a timer recording, the running indicator goes out.
- During recording, timer recording and copying, the "●" indicator lights up even while DVD section is activate.
- During timer recording and timer recording standby mode, the "⏸" indicator lights up even while the DVD section is activate.

# Search Functions

## VHS Index Search System (VISS)

This unit automatically adds special index signals on the tape when recording starts. You can find the desired programme quickly with these signals.

**During stop or playback,  
Press [**◀◀**] (backward) or  
[**▶▶**] (forward).**

- Each press increases the number of skips.

---

◇ **To cancel the Index Search or to stop playback**

Press [**■STOP**].

**Notes:**

- Up to 20 index signals can be searched for from both directions.
- If you press either one of the buttons too many times, you can correct the number of skips by pressing the opposite button.
- The figure on the display decreases by 1 each time an index signal is located.
- This feature may not work correctly if the marks are too close together. Make recordings of at least 5 minutes.

◇ **Index signals are recorded in the following cases**

- When a recording is started by pressing [**●REC**].
- When [**●REC**] on the remote control is pressed during recording.
- When timer recording is activated.

# Settings Using the On-Screen Display

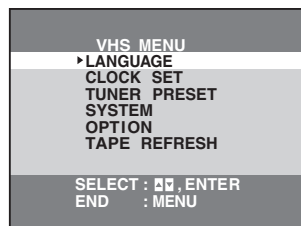
Change the settings to suit your preferences and the environment in which you are using the unit. These settings are retained in the memory until they are changed, even if the unit is turned off.

- Select the unit viewing channel (or the AV input) on the TV.
- Press [VHS SELECT] (→ 8).

## Common procedures

- 1 Press [MENU].
- 2 Press [▲▼] to select the menu.
- 3 Press [ENTER].

- ◇ For "LANGUAGE" (→ 13)
- ◇ For "CLOCK SET" (→ 13)



## Tuner Preset

The unit tunes automatically when you plug it in and turn it on for the first time (→ 12), but you can start the process again if necessary.

- Select any programme position except "A1", "A2" or "dc".

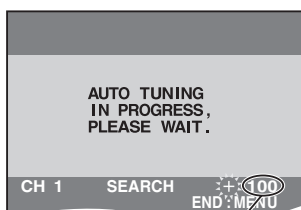
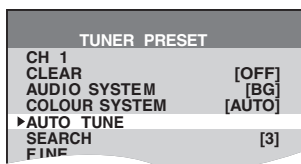
## Auto Tuning

Auto tuning searches for TV stations from VHF minimum to UHF maximum and memorizes every tuned programme position. Other programme positions are skipped (Channel plan → below).

- [1] Press [▲▼] to select "AUTO TUNE".

- [2] Press [◀▶] to start Auto Tuning.

- It may take up to 5 minutes or more to complete.
- When Auto Tuning is completed, the on-screen display disappears and programme position 1 is selected.



The number of channels still to be auto tuned.

- ◇ To stop halfway through Press [MENU].

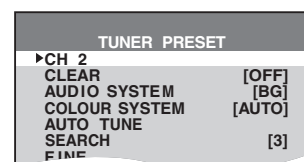
- ◇ If the unit is not correctly tuned by Auto Tuning Follow the procedure on the right (Manual Tuning).

## Channel plan

SYSTEM		VHF	UHF	CATV
B G	CCIR Standard (B.G.H)	E2-E12	E21-E69	S01-S05 M1-M10 U1-U10 S21-S41
I	Hong Kong Special Administrative Region of China, UK (I)	—	E21-E69	—
D K	East Europe (D.K.K1)	R1-R12	E21-E69	44-470 MHz
	China (D)	C1-C12	C13-C57	Z1-Z35

## Manual Tuning

- [1] Press [▲▼] to select "CH" and then press [◀▶] to select the channel.

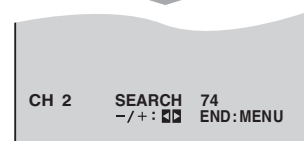


- [2] Press [▲▼] to select "CLEAR" and then press [◀▶] to select "OFF".



- To select a blank programme, select "ON". If you select "ON", proceed to step 6.

- To restore the channel again, select "OFF".
- Repeat steps 1 and 2 for another unoccupied programme positions to skip during the selection of the programme positions.



- [3] Press [▲▼] to select "AUDIO SYSTEM" and then press [◀▶] to select the broadcasting system.

BG: PAL B.G.H/SECAM B.G  
I: PAL I  
DK: PAL D/SECAM D.K.K1

- [4] Press [▲▼] to select "COLOUR SYSTEM" and then press [◀▶] to select "AUTO".

- The unit automatically distinguishes between PAL and SECAM broadcasts.
- If the picture lacks of colour when "AUTO" is selected, select "MESECAM" or "PAL".

- [5] Press [▲▼] to select "SEARCH" and then press [◀▶] to start Manual Tuning.

- If the desired TV station has not been tuned, press [◀▶] again.
- Press [MENU] and repeat steps 1-5 for each programme position you want to tune to a station.
- You can also set the programme position directly by entering the number with the numeric buttons (→ below).

## Direct Tuning

After you select "SEARCH", press the numeric buttons to select the programme position.

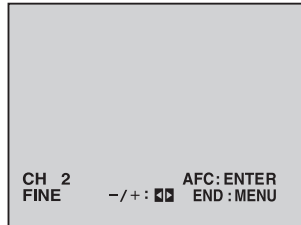
- Repeat the steps above for other channels that require tuning.

- [6] Press [MENU] repeatedly until the setting screen disappears.



## Fine Tuning

- [1] Press [▲▼] to select “CH” and then press [◀▶] to select the channel.
- [2] Press [▲▼] to select “FINE” and then press [◀▶] to obtain the best tuning condition.
  - Press [ENTER] to return the tuning to its former state.
- [3] Press [MENU] until the setting screen disappears.

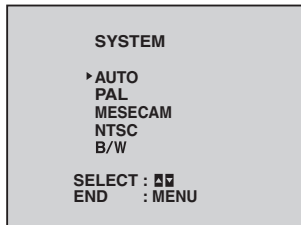


## System

Set the Colour TV System.

- [1] Press [▲▼] to select “AUTO”.

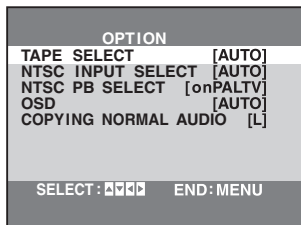
- The VHS automatically distinguishes between PAL, SECAM/MESECAM and NTSC signals. If the picture lacks colour during AV external recording, playback or recording from DVD to VHS, set to “PAL”, “MESECAM” or “NTSC”.
- When you want to record or playback in black and white, set to “B/W”.



- [2] Press [MENU] repeatedly until the setting screen disappears.

## Option

Press [▲▼] to select the item and then press [◀▶] to change the setting.



◇ To exit the settings screen  
Press [MENU] twice.

## Items

Settings (Underlined items are the initial setting.)

### TAPE SELECT

Set the length of tape you are using so the unit can show the correct remaining time (→ 22)

AUTO: E30, E60, E90, E120, E180 and E240 tapes  
 E195: E195 tapes  
 E260: E260 tapes  
 E300: E300 tapes

### NTSC INPUT SELECT

Select the colour TV system used to record NTSC signals

AUTO: NTSC [4.43] and [3.58] signals  
 • If the tape has not recorded correctly, select 4.43 or 3.58.  
 4. 43: NTSC 4.43 signals  
 3. 58: NTSC 3.58 signals  
 • Some programmes on the NTSC 3.58 system cannot be recorded.

### NTSC PB SELECT

Select the colour TV system of the TV used to playback a tape recording NTSC signals

onPALTV: TVs that can receive PAL signals  
 4. 43: TVs that can receive NTSC 4.43 signals  
 3. 58: TVs that can receive NTSC 3.58 signals

### OSD (→ 22)

AUTO: Messages appear on the TV for about 5 seconds when you press [VHS STATUS].  
 OFF: Messages do not appear.

### COPYING NORMAL AUDIO (→ 38)

Select the audio channel to be recorded on the Normal audio track when copying a bilingual DVD

L: To record the sound from left channel  
 R: To record the sound from right channel

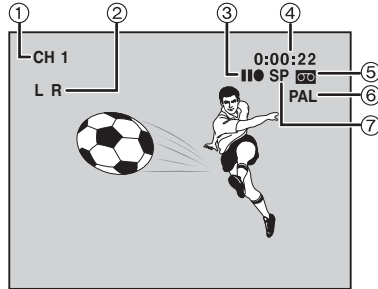
## Settings Using the On-Screen Display

### Various Indications in On-screen Display

To see these displays, set the OSD item in the "OPTION" menu to "AUTO" (→ 21).

#### Press [VHS STATUS].

The time and operation details appear on the screen for about 5 seconds.



①	<b>Channel display</b> This indication only appears when VHS playback is stopped.
②	<b>L and R indicators</b> The Left (L) and Right (R) indicators show which sound mode is selected as follows: Stereo: Both the L and R indicators appear. L: The L indicator appears. R: The R indicator appears. Normal: Neither the L nor R indicator appears.
③	<b>Operation status display</b>
④	<b>Shows the time and tape counter</b> Pressing [VHS STATUS] once makes the on-screen display appear. After that, press the button repeatedly to change the display as follows: Present time→Tape counter→Remaining tape time→Present time During Index Search: "S 01" to "S 20" is displayed. (→ 19) During Jet Rewind: "J.REW" is displayed. (→ 14) ● Press [RESET] to reset the tape counter (elapsed time) to "0:00:00". The tape counter is automatically reset to "0:00:00" when a video cassette is inserted. ● The remaining time is approximate. It will be incorrect if you set the wrong tape time in "TAPE SELECT" in the "OPTION" menu or if the tape is of poor quality.
⑤	<b>Cassette-in indicator</b> Shows whether you have inserted a video cassette.
⑥	<b>Colour system indicator (→ 21)</b> Shows selected colour TV system except "AUTO".
⑦	<b>Recording mode indicator (→ 16)</b>

#### Notes:

- These displays do not appear when paused or during slow play.
- The on-screen display may be distorted depending on the playback tape or the input signal.

### Changing Audio

#### To change the audio, press [AUDIO].

The audio changes as follows:

When playing a tape: LR→L→R→Normal audio track→LR

While watching the TV: LR→L→R→Normal→LR

- You cannot change the audio while you use "dc" channel (→ 38).

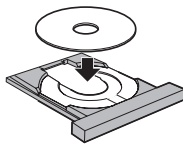
# Playing Discs-basic Play

- Select the unit viewing channel (or the AV input) on the TV.
- Press [DVD] to turn on the unit.
- Press [DVD SELECT] (→ 8).

## 1 Press [▲OPEN/CLOSE] to open the disc tray.

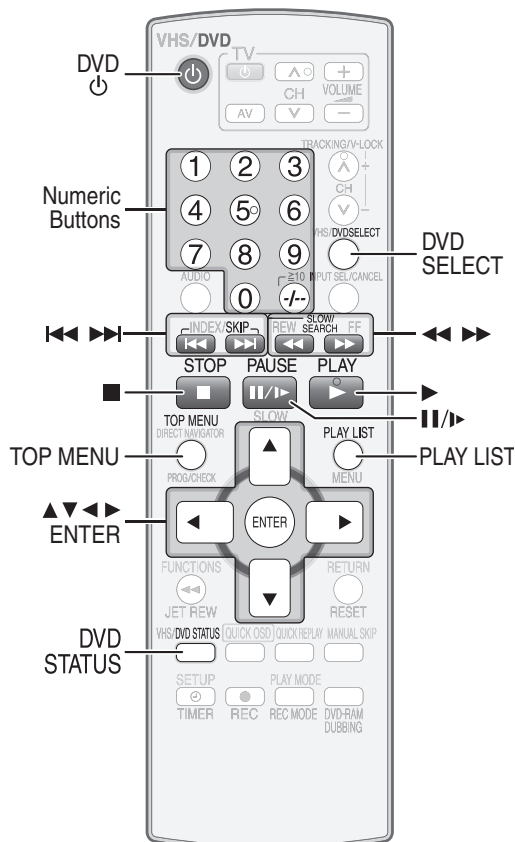
## 2 Place the disc with the label facing upward.

- Load double-sided discs with the label of the side you want to play facing up.

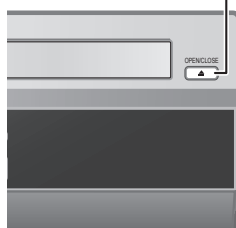


## 3 Press [▶PLAY].

- The disc tray closes and play begins. It is normal for sound and pictures to take time to start.
- When playing HighMAT discs, track information appears on the TV.



▲ OPEN/CLOSE



### DVD Select



Press this button to select DVD. Check if the DVD selector indicator is displayed on the unit's display (→ 7, 8).

### Stop



Press this button during play.

- When "III" flashes on the unit's display, the **Resume function** is active. The unit memorizes the position when you press [STOP].

**Resume function**  
Press [▶PLAY] once to start from this position.

- Press [STOP] again to clear it.

### Skip



Press these buttons to skip chapters, tracks or programmes.

- Each press increases/decreases the number of skips.
- After skipping, the unit returns to the previous state, play or pause.

**DVD-VR**  
• If the marker is memorized, the marker position is accessed.

**When you skip groups**  
**JPEG**  
Press [▼] (backward) or [▲] (forward).

### Still picture (Pause)



Press this button during play.

### Search (during play)

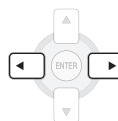
Press [▶PLAY] to start normal play.

### Slow-motion (during pause)



Press these buttons while paused.

### Frame-by-frame (during pause)



Press these buttons while paused.

- Each press shows the next or previous frame.
- Press and hold to change in succession.
- For forward only, pressing [PAUSE] repeatedly also shows frame by frame.

### DVD status



Change the unit's display Counter display ↔ Disc information.

### Open/Close



Press this button to open the disc tray.

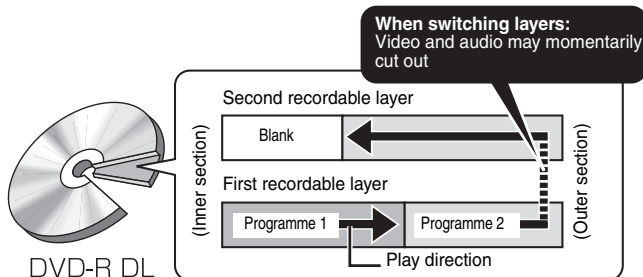
- You can eject a disc even if the power is turned off.

◇ To restart play  
Press [▶PLAY].

## Playing Discs-basic Play

### Notes:

- If “⊘” appears on the TV, the operation is prohibited by the unit or the disc.
- If there is a disc loaded in the unit when it is turned on, the disc may start playing automatically.
- When the whole disc has finished playing, the unit automatically stops. Some discs show a menu screen.
- When “Press PLAY to resume play” is displayed, the play position is memorized even if the unit is turned off. (Power off resume)
- The disc keeps rotating when showing a still picture (pausing).
- Pressing [◀◀]/[▶▶] or [▶▶]/[▶▶] may take you to a menu screen depending on the disc or the portion played (e.g. Video CDs).
- **VCD** You cannot move backwards during slow-motion and frame-by-frame.
- Each press or hold [◀◀] or [▶▶] accelerates the search or the slow-motion speed in 5 steps.
- Slow-motion and frame-by-frame only work on moving pictures except **DivX**.
- Discs that need to be finalized and are not finalized cannot be played. (→ 5)
- DVD-R DL (single-sided, dual layer) discs have two writable layers on one side as shown on the illustration below. If there is not enough space on the first layer to record a programme, the balance is recorded on the second layer. (→ **Programme 2 illustration below**) When playing a programme recorded on both layers, the unit automatically switches between layers and plays the programme in the same way as a normal programme. However, video and audio may momentarily cut out when the unit is switching layers.



### When a menu screen appears on the TV

For motion pictures except **DVD-VR** **MPEG4** **DivX**  
**Press the numeric buttons to select the desired item.**  
 Example: “03”; [3]

“10”; [≥10]→[1]→[0]

- You can also use [▲▼◀▶] to select items. Press [ENTER] to confirm your selection.

#### ◇ To revert to the menu screen

Press [PLAY LIST].

#### ◇ To show the top menu

Press [TOP MENU].

### Notes:

- Many Video CDs with playback control display a menu on the TV when played back.
- The operation may differ depending on the disc. Read the disc's instructions for details.
- Discs continue to rotate while menus are displayed. Press [■STOP] when you have finished viewing to preserve the unit's motor and your TV screen.



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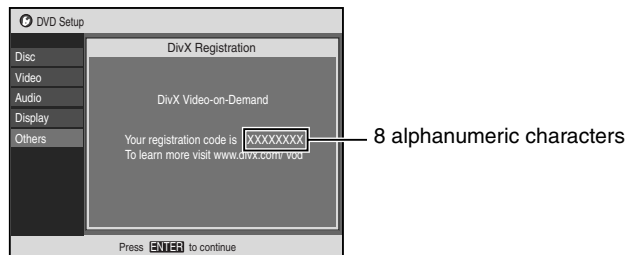
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# DivX VOD Contents

DivX Video-on-Demand (VOD) content is encrypted for copyright protection. In order to play DivX VOD content on this unit, you first need to register the unit (Setup Menu → 37).

Follow the online instructions for purchasing DivX VOD content to enter the unit's registration code and register the unit. For more information about DivX VOD, visit [www.divx.com/vod](http://www.divx.com/vod).

## Display the unit's registration code



- We recommend that you make a note of this code for future reference.
- After playing DivX VOD content for the first time, another registration code is then displayed in "DivX Registration". Do not use this registration code to purchase DivX VOD content. If you use this code to purchase DivX VOD content, and then play the content on this unit, you will no longer be able to play any content that you purchased using the previous code.
- If you purchase DivX VOD content using a registration code different from this unit's code, you will not be able to play this content. ("Authorization Error" is displayed.)

## Regarding DivX content that can only be played a set number of times

Some DivX VOD content can only be played a set number of times. When you play this content, the remaining number of plays is displayed. You cannot play this content when the number of remaining plays is zero. ("Rental Expired" is displayed.)

When playing this content

- The number of remaining plays is reduced by one if:
  - you press [VHS/DVD SELECT] or [SETUP].
  - you press [STOP]. (Press [PAUSE] to stop play.)
  - you press [SKIP] or [SEARCH] etc. and arrive at another content or the start of the content being played.
- Resume and Marker functions do not work.

# Useful Functions

- Select the unit viewing channel (or the AV input) on the TV.
- Press [DVD SELECT] (→ 8).

## Starting Play from a Selected Item

Press the numeric buttons.

Example: "10"; [≥10]→[1]→[0]

WMA MP3 JPEG MPEG4 DivX

Press the numeric buttons and then press [ENTER] or [▶ PLAY].

Example: "125"; [1]→[2]→[5]→[ENTER] or [▶ PLAY]

■ If the Video CD has playback control

- 1) Press [■ STOP] to clear "PBC" (→ 42).
- 2) Press the numeric buttons.

Notes:

- To return to the "PBC", press [■ STOP] and then press [PLAY LIST].
- This works only when stopped in some discs.
- This may not work depending on the disc or the play status.

## Starting Play from a Selected Group

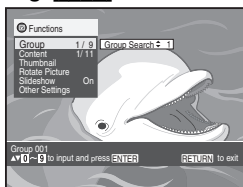
Except DVD-VR DVD-V

A folder containing WMA/MP3, JPEG, MPEG4 and DivX discs is treated as a group.

- [1] Press [FUNCTIONS] and then press [▲ ▼] to select "Group".

- [2] Press [▶] (cursor) then press [▲ ▼] to select the item and then press [ENTER].

e.g. JPEG



## Quick Replay

Except MPEG4 DivX and +R/+RW

JPEG Only when the elapsed play time can be displayed.

During play, press [QUICK REPLAY] to skip back a few seconds.



Note:

- This may not work on some parts of a disc or some kind of discs.

## Changing Play Speed

For motion pictures except VCD MPEG4 DivX

During play,

- [1] Press [FUNCTIONS] and then press [▲ ▼] to select "Other Settings".

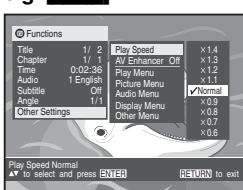
- [2] Press [▶] (cursor) to select "Play Speed".

- [3] Press [▶] (cursor) and then press [▲ ▼] to select "Normal" or a speed ratio.

- [4] Press [ENTER].

- From ×0.6 to ×1.4 (in 0.1 units)
- After you change the speed.
  - Digital output switches to PCM-2 ch.
  - Sampling frequency of 96 kHz is converted to 48 kHz.
- To return to normal play Press [▶ PLAY].

e.g. DVD-V



## AV Enhancer

(On the main unit only)

By simply pressing this button the disc type is automatically determined and the best audio and video settings are configured.

Press [AV ENHANCER] to select "On".

Off: Disables AV Enhancer. The user settings are valid.

Audio settings: Night Sound Mode (→ 35)  
H.Bass (→ 35)  
Advanced Surround (→ 31)  
Dialogue Enhancer (→ 35)  
Multi Re-master (→ 31)  
Sound Enhancement (→ 35)

Video settings: Picture Mode (→ below)

On: Effects are automatically applied to audio, video, and photographs according to the disc being played back. The user settings are invalid.

\* On the remote control, this setting can be operate by using On-Screen Menus (→ 34).



## Picture Mode

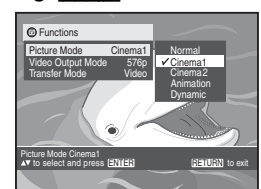
For still and motion pictures except MPEG4 DivX

- This function does not work when AV Enhancer is turned "On".

- [1] Press [FUNCTIONS] and then press [▲ ▼] to select "Other Settings".

- [2] Press [▶] (cursor) then press [▲ ▼] to select "Picture Menu" and then press [ENTER].

e.g. DVD-V



- [3] Select "Picture Mode", press [▶] (cursor) and then press [▲ ▼] to select desired picture mode.

- Normal: Normal mode (Initial Setting).
- Cinema1: Mellows images and enhances detail in dark scenes.
- Cinema2: Sharpens images and enhances detail in dark scenes.
- Animation: Suits the image quality for animation.
- Dynamic: You can enjoy dynamic images with emphasized contrast.

- [4] Press [ENTER].

◇ To exit the menu Press [RETURN].

## Rotating Pictures

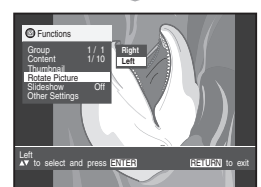
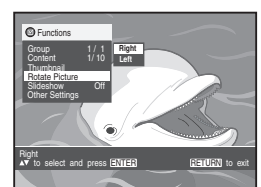
For still pictures

- [1] Press [FUNCTIONS] and then press [▲ ▼] to select "Rotate Picture".

- [2] Press [▶] (cursor) and then press [▲ ▼] to select "Right" or "Left".

- [3] Press [ENTER].

◇ To exit the menu Press [RETURN].





## Manual Skip

For motion pictures except **VCD** **MPEG4** **DivX** and +R/+RW  
Play starts from approximately 30 seconds later. This is convenient  
when you want to skip commercials etc.

**During play, press [MANUAL SKIP].**

**DVD-VR**

- It is not possible to skip the program if the start of the next program is within about 30 seconds of the point you skipped from.

## Displaying Current Playback Condition (Quick OSD)

**Press [QUICK OSD].**

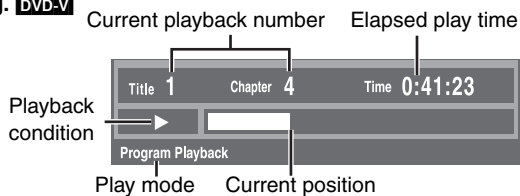
The current playback condition screen is displayed.

Each time you press the button:

Basics → Details → Off

### Basics

e.g. **DVD-V**



### Details

e.g. **DVD-V**

Changing Soundtrack (→ 30)	<b>*Details - DVD-Video</b> Audio    1 English    Digital 3/2.1 ch Subtitle    1 English Angle    1/1 Source Aspect    4:3 Title Total Time    0:54:28
Changing Subtitles (→ 30)	
Angles (→ 30)	
Aspect of current playback title	
Total play time of current playback title	

### ◇ To exit the menu

Press **[RETURN]**.

- When playing audio, the Quick OSD screen appears automatically.
- If there is JPEG data on the disc, the Quick OSD screen does not appear automatically.
- MPEG4** **DivX** While playing back, video information is not displayed during search.

## Advanced Disc Review

For motion pictures except **VCD** **MPEG4** **DivX** and +R/+RW  
Allows you to browse the disc contents and start playing from the selected position. You can select either "Intro Mode" or "Interval Mode" (→ 37).

**[1] Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".**

**[2] Press [▶] (cursor) then [▲▼] to select "Play Menu" and then press [ENTER].**

**[3] Press [▲▼] to select "Advanced Disc Review" and then press [ENTER].**

- Quick OSD screen is displayed.

e.g. **DVD-VR**



**[4] Press [▶ PLAY] when you find a title/program to play.**

## Program/Random Playback

### Common procedures

**While stopped, press [PLAY MODE].**

Each time you press the button:

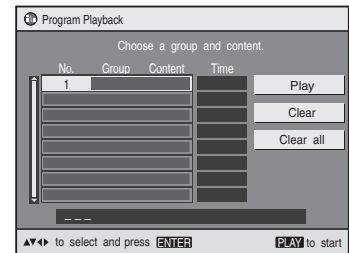
Program Playback → Random Playback → Off (Normal play)

### Program Playback

You can select up to 32 items to play in the order you choose.

**[1] Press the numeric buttons to select a group, title, chapter or track.**

e.g. **MP3**



Example: "10"; [≥10] → [1] → [0]

**WMA** **MP3** **MPEG4** **DivX**

"125"; [1] → [2] → [5] → [ENTER]

- Repeat this step to programme other items.

**[2] Press [▶ PLAY].**

- You may also select "Play" with [▶] (cursor) and press [ENTER] to start playing.
- Some items will not be played even if you programmed them.

### When you use the cursor buttons to select the item

- Press [ENTER] and then press [▲▼] to select an item.
- Press [ENTER] to register.
  - Select "ALL" to enter all the items in the selected disc, title or group.

### To change and cancel a programme

- Press [▲▼] to select an item and then press [ENTER].
- Carry out step 1 to change an item, or press [▶▼] to select "Clear" and then press [ENTER] to cancel.

### To clear the whole programme

Press [▶▼] to select "Clear all" and then press [ENTER].

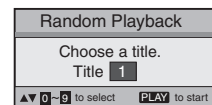
### Random Playback

The unit plays chapters in one DVD title or all tracks in a Video CD and audio CD at random.

**[1] Press [▲▼] to select a group or a title.**

e.g. **DVD-V**

**[2] Press [▶ PLAY].**



### ◇ To exit the program/random mode

- Press [■ STOP] twice.
- Press [PLAY MODE] repeatedly to select the normal mode.

### Notes:

- These functions do not work during HighMAT disc play. To disable "HighMAT" change the setting to "Play as Data Disc" (Other Menu → 35).
- DVD-V** Some items cannot be selected.
- VCD** **CD** Press [▶ PLAY] to start random playback.
- DVD-V** **WMA** **MP3** **JPEG** **MPEG4** **DivX** Times are not displayed while programming.
- When program/random play ends, the unit stops and the screen reverts to the play mode display.
- The programme is cleared when you turn the unit off or open the disc tray.

# Using Navigation Menus

## Playing a Data Disc

Except **DVD-VR** **DVD-V**

You can play a WMA, MP3, CD text, JPEG, MPEG4 or DivX disc by using the menu.

- Select the unit viewing channel (or the AV input) on the TV.
- Press **[DVD SELECT]** (→ 8).

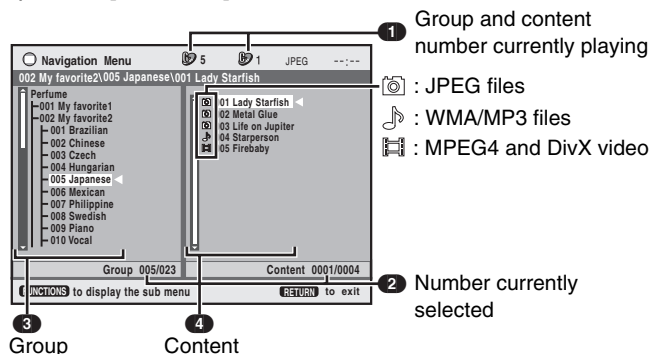
## Using Playback Menu (except JPEG files on DVD-RAM)

While the menu screen is displayed

- 1) Press **[▲▼]** to select "All", "Audio" or "Video" and then press **[ENTER]**.
  - To display/exit the screen Press **[TOP MENU]**.

## Using Navigation Menus

- 1) Press **[PLAY LIST]**.



- 2) Press **[▲▼◀▶]** to select the group or audio/picture content and then press **[ENTER]**.
  - To listen to WMA/MP3 contents while showing a JPEG image on the screen. Select the JPEG file first, and then select the audio contents. (The opposite order is not effective.)

◇ To exit the menu

Press **[PLAY LIST]** or **[RETURN]**.

## Using the submenu

- 1) While the Navigation Menu screen is displayed, press **[FUNCTIONS]**.
- 2) Press **[▲▼]** to select the submenu and then press **[ENTER]**.

✓ Multi	Groups and contents
List	Contents only
Tree	Groups only
Thumbnail	Thumbnail images <b>JPEG</b>
Next group	To the next group <b>WMA MP3 MPEG4 DivX</b>
Previous group	To the previous group <b>WMA MP3 MPEG4 DivX</b>
All	WMA/MP3, JPEG, MPEG4 and DivX video
Audio	WMA/MP3 only
Picture	JPEG files only
Video	MPEG4 and DivX video only
Help display	To switch between guide messages and the elapsed play time indicator
Find	To search by content or group title (→ below)

## Searching by a content or group title

Place the cursor on the group title to search a group, or place the cursor on the content title to search content.



While the submenu screen is displayed

- 1) Select "Find". (→ above)
- 2) Press **[▲▼]** to select a character and then press **[ENTER]**.
  - Repeat to enter another character.
  - Lower case characters are also searched.

- Press **[◀◀]** or **[▶▶]** to skip between A, E, I, O and U.
- Press **[◀]** to erase a character.
- You can erase "\*" to search for the titles starting with that character.
- You can enter numbers with the numeric buttons.

- 3) Press **[▶]** (cursor) to select "Find" and then press **[ENTER]**.
  - The search results screen appears.
- 4) Press **[▲▼]** to select the content or group and then press **[ENTER]**.

### Notes:

#### WMA

- WMA files must have the extension ".WMA" or ".wma".
- You cannot play WMA files that are copy-protected.

#### MP3

- This unit is not compatible with ID3 tags (→ 42).
- MP3 files must have the extension ".MP3" or ".mp3".
- If you play MP3 track that includes still picture data, it will take some time before the music starts playing and the elapsed time will not be displayed during this time. Even after the track starts, the correct play time will not be displayed.

#### JPEG

- JPEG files must have the extension ".JPG", ".jpg", ".JPEG", or ".jpeg".
- Use a digital camera that meets the DCF (Design rule for Camera File system) standard. Some digital cameras have functions that are not supported by the DCF standard like automatic picture rotation which may make pictures un-viewable.
- Do not alter the files in any way or save them under a different name.
- This unit cannot display moving pictures, MOTION JPEG and other such formats, still pictures other than JPEG (i.e. TIFF) or play the associated sound.

#### MPEG4

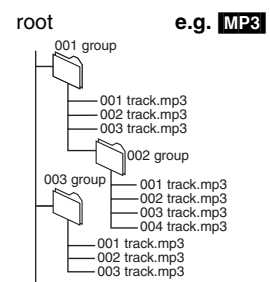
- MPEG4 files must have the extension ".ASF" or ".asf".
- You can play MPEG4 data [conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system] recorded with Panasonic SD multi cameras or DVD video recorders with this unit.
- The recording date may differ from that of the actual date.

#### DivX

- DivX files must have the extension ".DIVX", ".divx", ".AVI", or ".avi".
- GMC (Global Motion Compensation) is not supported.
- DivX files greater than 2 GB or have no index may not play properly on this unit.
- This unit supports all resolutions up to maximum of 720 × 480 (NTSC)/720 × 576 (PAL).
- You can select up to 8 types of audio and subtitles on this unit.

#### WMA MP3 JPEG MPEG4 DivX

- Formats that can be used are ISO9660 level 1 and level 2 (except extended format).
- Finalize the disc after recording. A disc that is not finalized may not be played.
- This unit is compatible with multi-session (→ 42) but if there are a lot of sessions it takes more time for play to start. Keep the number of sessions to a minimum to avoid this.



## Naming folders and files

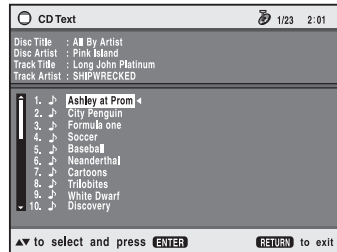
At the time of recording, prefix folder and file names with 3-digit numbers in the order you want to play them.

- Depending on how you create files, they may not play in the order you numbered them or may not play at all.

## Using the contents screen to find a track (CD text only)

While the menu screen is displayed

- 1) Press [**▲▼**] to move through the tracks and then press [**ENTER**].
- 2) Press [**RETURN**] to exit.



**Note:**

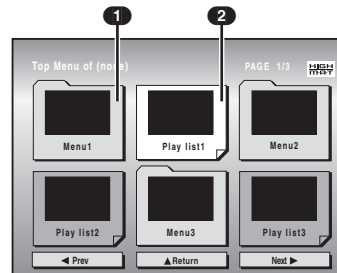
- This cannot be used during random playback.

## Playing a HighMAT Disc

A menu appears when you insert a disc.

While the menu is displayed, select the item following the on-screen instructions.

- 1 **Menu:**  
Takes you to the next menu which shows play lists or another menu.
- 2 **Play list:**  
Play starts.



◇ **To change the menu background**

Press [**FUNCTIONS**]. (The background changes to the one recorded on the disc.)

◇ **To display the menu**

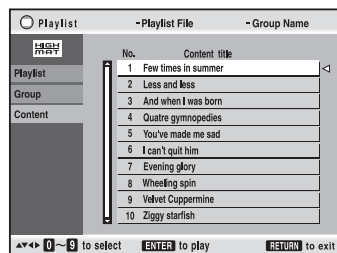
Press [**TOP MENU**].

◇ **To exit the menu**

Press [**STOP**].

## Selecting from the lists

- 1) During play, press [**PLAY LIST**].
- 2) Press [**◀**] and then [**▲▼**] to switch between the play list, group and content lists.
- 3) Press [**▶**] (cursor) then [**▲▼**] to select an item and then press [**ENTER**].



◇ **To exit the list screen**

Press [**PLAY LIST**] or [**RETURN**].

## Playing a DVD Video Recording Format Disc

### Direct Navigator

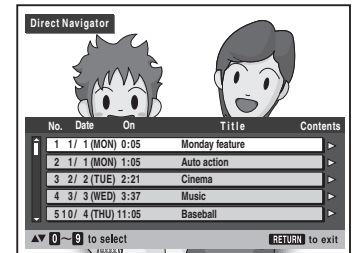
You can use the programme list to search for a desired programme to play.

[1] Press [**DIRECT NAVIGATOR**].

[2] Press [**▲▼**] to select the programme.

- The programme selected is played in the background.
- You can also use the numeric buttons.  
Example: "03"; [3]  
"10"; [≥10]→[1]→[0]

- Press [**▶**] (cursor) to show the contents of the programme.



[3] Press [**ENTER**] to start play.

◇ **To clear the programme list**

Press [**RETURN**], [**ENTER**] or [**DIRECT NAVIGATOR**].

**Notes:**

- The Direct Navigator programme list displays up to 99 programmes.
- Titles appear only if they have been entered.
- You cannot change programme and disc titles.

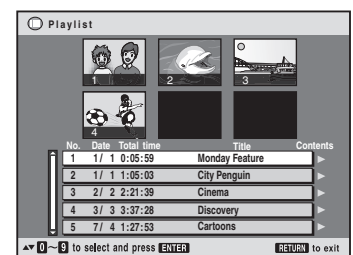
### Playing a play list

You can play a play list (→ 6) created on other equipment such as a DVD video recorder.

[1] Press [**PLAY LIST**].

[2] Press [**▲▼**] to select the play list.

- You can also select play lists with the numeric buttons.  
Example:  
"03"; [3]  
"10"; [≥10]→[1]→[0]



[3] Press [**ENTER**] to start play.

◇ **To clear the play list screen**

Press [**PLAY LIST**] or [**RETURN**].

**Note:**

- Up to 99 play lists can be displayed.

# To Enjoy Movies and Music More

- Select the unit viewing channel (or the AV input) on the TV.
- Press [DVD SELECT] (→ 8).

## Changing Soundtracks, Subtitles and Angles

Some discs have multiple subtitle languages, camera angles etc. which you can change during play.

- **VCD** (SVCD only) Soundtrack and subtitle numbers may change even if the corresponding soundtracks are not recorded.

### Soundtracks

For motion pictures except **MPEG4**

During play, press [AUDIO].

**DVD-V**: The number changes each time you press the button.

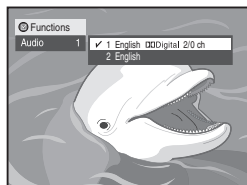
**VCD**

**DVD-VR**: Each time you press the button, the indication changes. LR→L→R→LR

**DivX**: While the menu is displayed Press [◀▶] to select "L", "R" or "LR".

- You can also use this button to turn on and off the vocals on karaoke discs. Read the disc's instructions for details.
- Play restarts from the beginning of the soundtrack when playing DVD-RAM soundtracks that are accompanied by still pictures.
- **DivX** It may take some time for play to start if you change the audio on a DivX video disc.
- **DivX** The setting will return to "LR" if you stop playback, open the disc tray or turn the unit off.
- Refer to **A** (Audio attributes → 35) for audio signal type details.

e.g. **DVD-V**



### Subtitles

For motion pictures except **MPEG4**

(**VCD**): SVCD only)

**DVD-V** **VCD**: You can change the subtitle language and turn the subtitles on and off.

**DVD-VR**: You can turn the subtitles on and off.

During play,

[1] Press [FUNCTIONS] and then press [▲▼] to select "Subtitle".

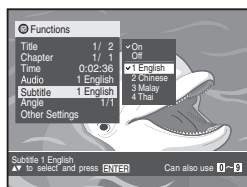
[2] Press [▶] (cursor) to select "On" and then press [ENTER].

[3] Press [▲▼] to select the desired language and then press [ENTER].

■ To clear the subtitles

- 1) Press [FUNCTIONS] and then select "Subtitle".
- 2) Press [▶] (cursor) (**DVD-V** **VCD** **DivX**) and then select "Off" by pressing [▲▼].
- 3) Press [ENTER].

e.g. **DVD-V**



## DVD-V Changing the position and brightness of the subtitles

During play,

e.g. **DVD-V**

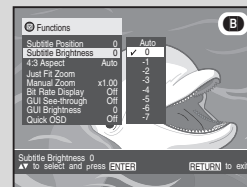
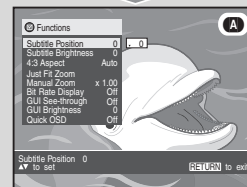
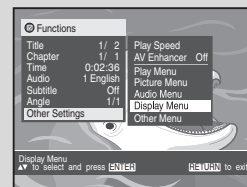
- 1) Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".
- 2) Press [▶] (cursor) then [▲▼] to select "Display Menu" and then press [ENTER].
- 3) Press [▲▼] to select "Subtitle Position" or "Subtitle Brightness" and then press [▶] (cursor).
- 4) Press [▲▼] to adjust the position or brightness.
  - Adjust position between 0 and -60 in 2 unit steps.
  - For brightness, select "Auto" so the brightness adjusts automatically against the background or select a level between 0 and -7.
- 5) Press [ENTER].

■ To clear/display the subtitles

- 1) Press [FUNCTIONS] and then select "Subtitle".
- 2) Press [▶] (cursor) (**DVD-V** **VCD** **DivX**) and then press [▲▼] to select "Off" or "On".
- 3) Press [ENTER].

**A** Subtitle Position

**B** Subtitle Brightness



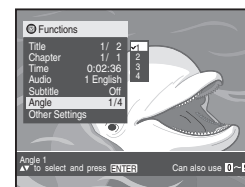
### Angles

For **DVD-V**

During play,

[1] Press [FUNCTIONS] and then press [▲▼] to select "Angle".

[2] Press [▶] (cursor) to select the desired angle.



◇ To exit the menu  
Press [RETURN].

## Advanced Surround

**DVD-V DVD-VR VCD (2-channel or more) MPEG4 DivX**

You can enjoy a surround-like effect if you are using 2 front speakers (SP) or headphones (HP). The effect broadens when playing discs with surround effects and sound seems to come from speakers either side of you.

- To enjoy HP-mode, connect the unit to equipment that has a headphone socket.
- This function does not work when AV Enhancer is turned "On".

During play,

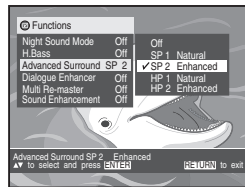
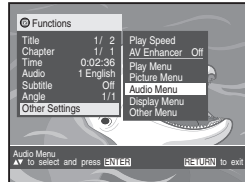
[1] Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".

[2] Press [▶] (cursor) then [▲▼] to select "Audio Menu" and then press [ENTER].

[3] Press [▲▼] to select "Advanced Surround" and then press [▶] (cursor).

[4] Press [▲▼] to select the desired effect.

e.g. **DVD-V**



[5] Press [ENTER].

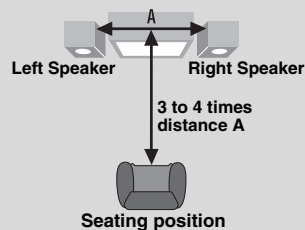
Off: Cancel (Initial Setting)

HP 2: Enhanced effect      SP 1: Natural effect

HP 1: Natural effect ↔ SP 2: Enhanced effect

### Effective listening using the front speakers only

- If "SP 1" or "SP 2" is selected, sound is only output from the front speakers.
- To activate, then turn off the surround effects on other equipment.
- This function will not work or the effect will be less with some discs.
- Turn this function off if it causes distortion.



## Repeat Play

For motion pictures and audio: When the elapsed play time/remaining play time is displayed.

For still pictures: Works with all JPEG content although the elapsed play time/remaining play time cannot be displayed.

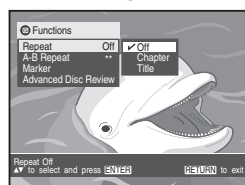
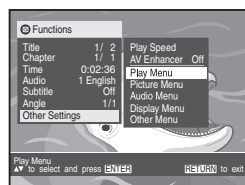
During play,

[1] Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".

[2] Press [▶] (cursor) then [▲▼] to select "Play Menu" and then press [ENTER].

[3] Press [▲▼] to select "REPEAT", press [▶] (cursor) and then press [▲▼] to select desired effect.

e.g. **DVD-V**



**DVD-VR**

Off ↔ Program ↔ All

### While playing a play list

Off ↔ Scene ↔ Playlist

**DVD-V**

Off ↔ Chapter ↔ Title\*

**VCD CD**

Off ↔ Track ↔ All

**WMA MP3 MPEG4 DivX**

Off ↔ Content ↔ Group\*

**JPEG**

Off ↔ Group\*

\*During program and random play, it is displayed "All".

### Notes:

- You can also repeat play of content and group on HighMAT discs.
- This may not work on some discs.
- If a DVD has 2 or more titles, it is not allowed to repeat the whole disc.
- This does not work during menu play of a Video CD with playback control.

## Multi Re-master

For motion pictures and audio

**DVD-V DVD-VR** (Discs recorded with 48 kHz only)

**VCD CD WMA MP3** (Discs recording with a sampling frequency other than 8 kHz, 16 kHz, 32 kHz)

**DVD-V DVD-VR VCD CD**

- During multi-channel output, this feature reproduces the frequencies lost during recording to give you a sound closer to the original.
- During 2 ch output, this feature gives you a more natural sound by adding higher frequency signals not recorded on the disc, for example, playing DVD-Video recorded with 48 kHz at 96 kHz. (Sampling frequency → 42)

**WMA MP3**

This feature reproduces the higher frequencies lost during recording to give you a sound closer to the original.

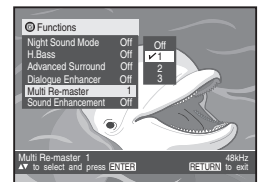
During play,

e.g. **DVD-V**

[1] Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".

[2] Press [▶] (cursor) then [▲▼] to select "Audio Menu" and then press [ENTER].

[3] Press [▲▼] to select "Multi Re-master", press [▶] (cursor) and then press [▲▼] to select "Off", "1", "2" or "3".



Setting	<b>DVD-V VCD</b> (LPCM/PPCM) Type of music	Other discs Effect level
Off	Off	Off
1	High tempo (e.g., pop and rock)	Light
2	Various tempos (e.g., jazz)	Medium
3	Low tempo (e.g., classical)	Strong

[4] Press [ENTER].

### To exit the menu

Press [RETURN].

### Notes:

- This function does not work when AV Enhancer is turned "On".
- This feature may not work when connected with DIGITAL AUDIO OUT terminals.
- This may not work depending on the disc's recording.
- This does not work when Night Sound Mode, H.Bass or Advanced Surround is on (→ Left, 35).



## To Enjoy Movies and Music More

### Variable Zoom Function

For motion pictures: Change the zoom ratio so the pictures expand to suit the screen.

- Change the setting "TV Aspect" to suit your TV. (→ 37)

#### Just Fit Zoom

During play,

- [1] Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".

- [2] Press [▶] (cursor) then [▲▼] to select "Display Menu" and then press [ENTER].

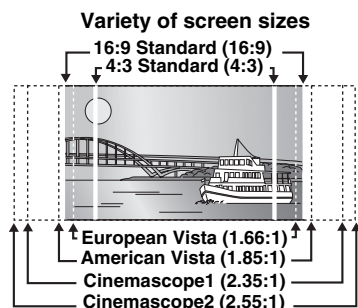
- [3] Press [▲▼] to select "Just Fit Zoom" and then press [▶] (cursor).

- [4] Press [▲▼] to select the present aspect ratio and then press [ENTER].

**DVD-V DVD-VR VCD**

Auto ↔ 4:3 Standard ↔ European Vista ↔ 16:9 Standard

↕ Cinemascope2 ↔ Cinemascope1 ↔ American Vista



**MPEG4 DivX**

Standard ↔ Original

↔ Full ↔

#### Manual Zoom

During play,

- [1] Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".

- [2] Press [▶] (cursor) then [▲▼] to select "Display Menu" and then press [ENTER].

- [3] Press [▲▼] to select "Manual Zoom" and then press [▶] (cursor).

- [4] Press [▲▼] to adjust.

**DVD-V DVD-VR VCD** The ratio changes from ×1.00 to ×1.60 (in 0.01 units) and from ×1.60 to ×2.00 (in 0.02 units).

**MPEG4 DivX** The ratio changes from ×2.00 to ×4.00 (in 0.05 units).

#### Notes:

- The ratio automatically will return to ×1.00 when you open the disc tray, change the source or turn off the unit.
- Refer to the disc's instructions and "Variety of screen sizes" (→ above) for the aspect ratio of the picture.
- It may not be possible to zoom up to ×4.00 depending upon the connected television and its settings.

### Progressive Out (Component)

You can enjoy higher image quality than that output from the conventional video out terminal or S-Video terminal (Interlace and progressive output → 42).

- Connect to the component video input on a progressive compatible TV (→ 9). Video will not be displayed correctly if connected to an incompatible TV.

- [1] Press [FUNCTIONS] and then press [▲▼] to select "Other Settings".

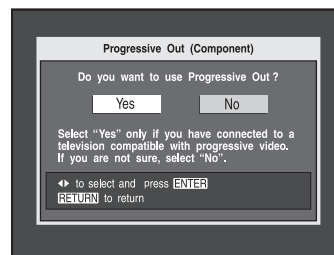
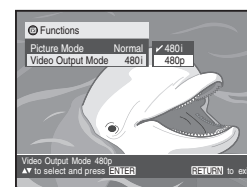
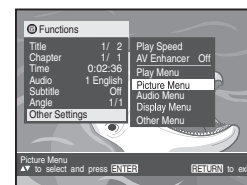
- [2] Press [▶] (cursor) then [▲▼] to select "Picture Menu" and then press [ENTER].

- [3] Press [▲▼] to select "Video Output Mode" and then press [▶] (cursor).

- [4] Press [▲▼] to select "p" (progressive) (→ 34) and then press [ENTER].

- [5] Press [◀▶] to select "Yes" and then press [ENTER].

e.g. **DVD-V**



- [6] Press [ENTER].

#### ◇ To exit the menu

Press [RETURN].

#### Notes:

- All Panasonic TVs that have progressive input are compatible. Consult the manufacturer if you have another brand of TV.
- The VHS video can not be progressive-output.
- The TV will be disrupted for a moment but this is normal.
- Output from this unit is interlaced scanning if you have connected to the TV through VIDEO OUT or S-VIDEO OUT terminals, regardless of the settings.
- When progressive output is on, closed captions will not be displayed.



## Digital Output

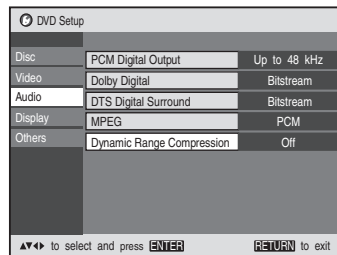
For **DVD-V**

When you have connected equipment through this unit's COAXIAL DIGITAL AUDIO terminal (→ 10), change the settings for "PCM Digital Output", "Dolby Digital", "DTS Digital Surround" and "MPEG" (→ 37). You can enjoy powerful movie theater and hall-like sound.

[1] Press [SETUP].

[2] Press [▲▼] to select "Audio".

[3] Press [▶] (cursor) then [▲▼] to select the item (→ below), and then press [ENTER].



[4] Press [▲▼] to select the item and then press [ENTER].

[5] Press [SETUP] to end the settings.

### PCM Digital Output

Check the digital input limitations of the equipment you have connected using COAXIAL terminal and select the maximum sampling rate of the PCM digital output.

**Up to 48 kHz** (Initial setting): When connected to equipment compatible with 44.1 kHz or 48 kHz

**Up to 96 kHz:** When connected to equipment compatible with 88.2 kHz or 96 kHz

#### Notes:

- Signals from copy-protected discs are converted to 48 kHz or 44.1 kHz.
- Some equipment cannot handle sampling rate of 88.2 kHz even if they can handle 96 kHz. Read your equipment's operating instructions for details.

### Dolby Digital, DTS Digital Surround and MPEG\*

**Bitstream** (Initial setting for Dolby Digital and DTS Digital Surround): Select if the equipment you connected can decode the signal.

**PCM** (Initial setting for MPEG\*): Select if the equipment you connected cannot decode the signal.

\*MPEG: for **NV-VP60GC** only

#### IMPORTANT


Select "**Bitstream**" when the equipment can decode the bitstream (digital form of multi-channel data). Otherwise, select "**PCM**".

# Using On-Screen Menus

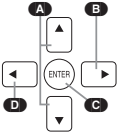
On-Screen Menus are menus that contain information about the disc or unit. These menus allow you to operate the unit by changing this information.

- Select the unit viewing channel (or the AV input) on the TV.
- Press **[DVD SELECT]** (→ 8).

## Common procedures

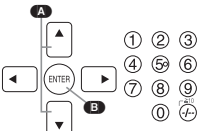


**1 Press [FUNCTIONS] once.**




**2 Select the menu.**

- A** Select
- B** Go to the next menu
- C** Register
- D** Return to the previous menu



**3 Make the settings.**

- A** Select
- B** Register



**4 Press [RETURN] to exit.**

◇ **To cancel the menus**  
Press **[FUNCTIONS]** or **[RETURN]**.

## Main Menu

<b>Program Group</b> <b>Title</b> <b>Chapter</b> <b>Track</b> <b>Playlist</b> <b>Content</b>	<b>To start from a specific item.</b>
<b>Time</b> *Except +R/ +RW	<b>To skip forwards or backwards (Time Slip for play only)</b> 1. Press <b>[ENTER]</b> twice to show Time Slip indicator. 2. Press <b>[▲▼]</b> to select the time and then press <b>[ENTER]</b> . • Press and hold <b>[▲▼]</b> to change faster. <b>To start from a specific time* (Time Search)</b> <b>To change remaining/elapsed time display</b>
<b>Video</b>	<b>To display the pixel number</b> <b>DivX</b> fps (frames per second) is also displayed.
<b>Audio</b>	<b>To display the current bit rate or sampling rate</b> (→ 30)
<b>Thumbnail</b>	<b>To show thumbnail images</b>
<b>Subtitle</b>	• On +R/+RW, a subtitle number may be shown for subtitles that are not displayed. (→ 30)
<b>Marker (VR)</b>	<b>To recall a marker recorded on DVD-Video recorders</b>
<b>Angle</b>	(→ 30)
<b>Rotate Picture</b>	(→ 26)
<b>Slideshow</b>	<b>To turn on/off slideshow</b> <b>To change the slideshow timing (0–30 sec)</b>

## Other Settings

**Play Speed** (→ 26)

**AV Enhancer** (→ 26)

## Play Menu

**Repeat** (→ 31)

**A-B Repeat**

Except **JPEG** **MPEG4** **DivX**

(When the elapsed play time is displayed)

Repeat a section between points A and B within an item.

**[ENTER]** (start point) → **[ENTER]** (end point) → **[ENTER]** (cancel)

- If the end of an item is reached before pressing **[ENTER]** for the second time it becomes point B.
- Some subtitles recorded around point A or B may not appear.
- A-B repeat is canceled when you press **[QUICK REPLAY]** or **[MANUAL SKIP]**.

**Marker** (→ below)

**DVD-VR**: 999 positions

Except **DVD-VR**: 5 positions

**Advanced Disc Review**

Reviewing title to play Advanced Disc Review. (→ 27, 37)

## Marker

**To mark up to 5 positions to play again**

**[ENTER]** (The unit is now ready to accept markers.)

To mark a position: **[ENTER]** (at the desired point)

To mark another position: **[◀▶] → [ENTER]**

To recall a marker: **[◀▶] → [ENTER]**

To erase a marker: **[◀▶] → [CANCEL]**

## Notes:

- If places have been marked (e.g. with a DVD video recorder), they are displayed.
- This feature doesn't work during program and random play.
- Markers added with this unit clear when you turn the unit off, change the source or open the disc tray.

## Picture Menu

**Picture Mode** (→ 26)

**Video Output Mode** (→ 32)

**480i/576i**: Interlace video

**480p/576p**: Progressive video

**Transfer Mode**

If you have chosen "480p/576p" (→ above), select the method of conversion for progressive output to suit the type of material.

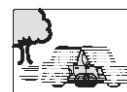
- When the tray is opened, the setting will return to Auto or Auto1.

When playing PAL discs

**Auto**: Automatically detects the film and video content and then appropriately converts it.

**Video**: Select if the content is distorted when Auto is selected.

**Cinema**: Select this if the edges of the film content appear jagged or rough when Auto is selected. However, select Auto if the video content is distorted as shown in the illustration on the right.



When playing NTSC discs

**Auto1 (normal)**:

Automatically detects the film and video content, and appropriately converts it.

**Auto2**: In addition to Auto1, automatically detects film contents with different frame rates and appropriately converts it.

**Video**: Select if the content is distorted when Auto1 or Auto2 is selected.

## Audio Menu

### Night Sound Mode

You can enjoy clear sound without setting the volume at a high level.

On  $\longleftrightarrow$  Off

- This may not work depending on the discs recording.
- You can enjoy better sound through PCM-2 ch by connecting to a receiver amplifier.

### H.Bass

On  $\longleftrightarrow$  Off

- This does not work when Night Sound Mode ( $\rightarrow$  above) is on.
- This may not work depending on the discs recording.
- If the sound is distorted or there is noise, set to "Off".
- You can enjoy better sound through PCM-2 ch by connecting to a receiver amplifier.

### Advanced Surround ( $\rightarrow$ 31)

#### Dialogue Enhancer

**DVD-V** (Dolby Digital, DTS, 3-channel or more, with the dialogue recorded in the center channel)

**DivX** (Dolby Digital, 3-channel or over, with the dialogue recorded in the center channel)

This makes the dialogue in movies easier to hear.

On  $\longleftrightarrow$  Off

### Multi Re-master ( $\rightarrow$ 31)

#### Sound Enhancement (Except **MPEG4** **DivX**)

Enhances audio output to produce a rich hall-like sound.

On  $\longleftrightarrow$  Off

## Display Menu

### Information

On  $\longleftrightarrow$  Off (**JPEG**: Off, Date, Details)

### Subtitle Position/Brightness **DVD-V** ( $\rightarrow$ 30)

#### 4:3 Aspect

This function works only when you select 16:9 (wide screen) ( $\rightarrow$  13) as default screen size, to select the method of display for disc recorded in 4:3 Aspect on 16:9 screen size.

Press [ $\blacktriangle$   $\blacktriangledown$ ] to select and then press **[ENTER]**.

**Normal:** Fill to the width of the television screen.

**Auto:** The setting is automatically set to "Shrink" if the disc is recorded in 4:3 Aspect and automatically set to "Zoom" if the disc is recorded in 16:9 (wide screen).

**Shrink:** The 4:3 Aspect picture is shown in the centre of the television screen.

**Zoom:** Enlarge using 4:3 Aspect and trim the picture on the edges.

### Just Fit Zoom (For motion pictures) ( $\rightarrow$ 32)

Press **[ENTER]** and select with [ $\blacktriangle$   $\blacktriangledown$ ]. Then press **[ENTER]** to finish.

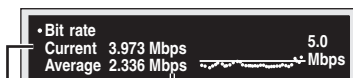
### Manual Zoom (For motion pictures) ( $\rightarrow$ 32)

#### Bit Rate Display (For motion pictures)

When you select "On":

During play: Shows the average bit rate (approximate values) of the video being played

While paused: Shows the data volume of the frame and type of picture (I/P/B  $\rightarrow$  42)



Current bit rate      A record of bit rates for a sampling period

### GUI See-through

On  $\rightarrow$  Auto  $\rightarrow$  Off

#### Auto:

GUI See-through setting becomes active except when you display screen saver or thumbnail images.

### GUI Brightness (-3 to +3)

Adjust the brightness of the on-screen displays.

### Quick OSD ( $\rightarrow$ 27)

Basics  $\rightarrow$  Details  $\rightarrow$  Off

## Other Menu

### Setup ( $\rightarrow$ 37)

#### Play as DVD-VR

While stopped, select "Play as Data Disc" to play JPEG files on DVD-RAM.

#### Play as HighMAT

or

#### Play as Data Disc

Play a HighMAT disc without using the HighMAT function.

## A Audio attributes For **DVD-V** **DVD-VR** (Display only)

**LPCM**, **Dolby Digital**, **DTS**, **MPEG**, **WMA/MP3**: Signal type

**kHz**: Sampling rate

**bit**: Number of bits

**ch**: Number of channels ( $\rightarrow$  42)

## B Audio/Subtitle language

ENG: English

FRA: French

DEU: German

ITA: Italian

ESP: Spanish

NLD: Dutch

SVE: Swedish

NOR: Norwegian

DAN: Danish

POR: Portuguese

RUS: Russian

JPN: Japanese

CHI: Chinese

KOR: Korean

MAL: Malay

VIE: Vietnamese

THA: Thai

\*: Others

# Changing Settings

Change the settings to suit your preferences and the environment in which you are using the unit. These settings are retained in the memory until they are changed, even if the unit is turned off. See the next page for menu and option details.

- Select the unit viewing channel (or the AV input) on the TV.
- Press **[DVD SELECT]** (→ 8).

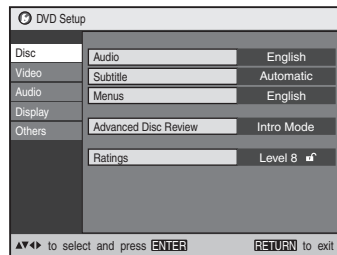
## Common procedures

### 1 Press **[SETUP]**.

During the Setup, the DVD playback will be stopped.

### 2 Press **[▲▼]** to select the menu's tab.

The screen changes to display the menu.



Disc ↔ Video ↔ Audio ↔ Display ↔ Others

### 3 Press **[▶]** (cursor) then **[▲▼]** to select the item and then press **[ENTER]**.

### 4 Press **[▲▼]** to select the option and then press **[ENTER]**.

The screen now shows the menu again.

◇ **To return to the previous screen**  
Press **[RETURN]**.

◇ **To exit the Setup menu**  
Press **[SETUP]**.

#### Note:

- Screens other than those described here may appear. In this case, follow the instructions shown on the screen.

## Entering a Password (Ratings)

For **DVD-V**

The password screen is shown when you select levels 0 to 7 (→ 37).

- 1) **Input a 4-digit password with the numeric buttons.**
  - If you enter a wrong number, press **[CANCEL]** to erase it.
- 2) **Press **[ENTER]**.**
  - The lock symbol is closed to show the rating is locked.
  - **"The Player is locked. Remember the passwords."** is displayed on TV screen.
- 3) **Press **[ENTER]** after confirming the 4 digits.**

Now, when you insert a DVD-Video that exceeds the ratings limit you set, a message appears on the TV. Follow the on-screen instructions.

## Language code list

Abkhazian: .....6566	Chinese: .....9072	Hausa: .....7265	Lithuanian: .....7684	Romanian: .....8279	Telugu: .....8469
Afar: .....6565	Corsican: .....6779	Hebrew: .....7387	Macedonian: .....7775	Russian: .....8285	Thai: .....8472
Afrikaans: .....6570	Croatian: .....7282	Hindi: .....7273	Malagasy: .....7771	Samoan: .....8377	Tibetan: .....6679
Albanian: .....8381	Czech: .....6783	Hungarian: .....7285	Malay: .....7783	Sanskrit: .....8365	Tigrinya: .....8473
Ameharic: .....6577	Danish: .....6865	Icelandic: .....7383	Malayalam: .....7776	Scots Gaelic: .....7168	Tonga: .....8479
Arabic: .....6582	Dutch: .....7876	Indonesian: .....7378	Maltese: .....7784	Serbian: .....8382	Turkish: .....8482
Armenian: .....7289	English: .....6978	Interlingua: .....7365	Maori: .....7773	Serbo-Croatian: ...8372	Turkmen: .....8475
Assamese: .....6583	Esperanto: .....6979	Irish: .....7165	Marathi: .....7782	Shona: .....8378	Twi: .....8487
Aymara: .....6589	Estonian: .....6984	Italian: .....7384	Moldavian: .....7779	Sindhi: .....8368	Ukrainian: .....8575
Azerbaijani: .....6590	Faroese: .....7079	Japanese: .....7465	Mongolian: .....7778	Singhalese: .....8373	Urdu: .....8582
Bashkir: .....6665	Fiji: .....7074	Javanese: .....7487	Nauru: .....7865	Slovak: .....8375	Uzbek: .....8590
Basque: .....6985	Finnish: .....7073	Kannada: .....7578	Nepali: .....7869	Slovenian: .....8376	Vietnamese: .....8673
Bengali, Bangla: ..6678	French: .....7082	Kashmiri: .....7583	Norwegian: .....7879	Somali: .....8379	Volapük: .....8679
Bhutani: .....6890	Frisian: .....7089	Kazakh: .....7575	Oriya: .....7982	Spanish: .....6983	Welsh: .....6789
Bihari: .....6672	Galician: .....7176	Kirghiz: .....7589	Pashto, Pushto: ..8083	Sundanese: .....8385	Wolof: .....8779
Breton: .....6682	Georgian: .....7565	Korean: .....7579	Persian: .....7065	Swahili: .....8387	Xhosa: .....8872
Bulgarian: .....6671	German: .....6869	Kurdish: .....7585	Polish: .....8076	Swedish: .....8386	Yiddish: .....7473
Burmese: .....7789	Greek: .....6976	Laotian: .....7679	Portuguese: .....8084	Tagalog: .....8476	Yoruba: .....8979
Byelorussian: .....6669	Greenlandic: .....7576	Latin: .....7665	Punjabi: .....8065	Tajik: .....8471	Zulu: .....9085
Cambodian: .....7577	Guarani: .....7178	Latvian, Lettish: ..7686	Quechua: .....8185	Tamil: .....8465	
Catalan: .....6765	Gujarati: .....7185	Lingala: .....7678	Rhaeto-Romance:..8277	Tatar: .....8484	

- ◇ If the selected language is not recorded on the disc or a language has been predetermined on the disc, the language most prioritized on the disc is used for play.

## Setup Menu

Menus	Items	Options (Underlined items are the initial setting.)
<b>Disc</b> <b>DVD-V</b>	<b>Audio</b> Choose the preferred audio language.	<ul style="list-style-type: none"> <li>• <u>English</u> (Language options → below)</li> <li>• <u>Original</u>: The original language of each disc will be selected.</li> <li>• <u>Other ****</u>: Input a code number with the numeric buttons (→ 36).</li> </ul>
	<b>Subtitle</b> Choose the preferred subtitle language.	<ul style="list-style-type: none"> <li>• <u>Automatic</u>: If the language selected for “Audio” is not available, subtitles of that language will automatically appear if available on that disc.</li> <li>• <u>English</u> (Language options → below)</li> <li>• <u>Other ****</u>: Input a code number with the numeric buttons (→ 36).</li> </ul>
	<b>Menus</b> Choose the preferred language for disc menus.	<ul style="list-style-type: none"> <li>• <u>English</u> (Language options → below)</li> <li>• <u>Other ****</u>: Input a code number with the numeric buttons (→ 36).</li> </ul>
	<b>Language options</b> French German Italian Spanish Portuguese Russian Dutch (For NV-VP60GCS only) Chinese	
	<b>Advanced Disc Review (→ 27)</b>	<ul style="list-style-type: none"> <li>• <u>Intro Mode</u>: Reviews each title/program.</li> <li>• <u>Interval Mode</u>: Reviews each title/program and also each 10 minute interval within a title/program.</li> </ul>
	<b>Ratings (→ 36)</b> Set a ratings level to limit DVD-Video play. • The password screen is shown if you choose levels 0 to 7 or if you choose “Ratings” when levels 0 to 7 have been selected. • Select “Level 0” to prevent play of discs that do not have rating levels recorded on them.	<b>Setting ratings (When level 8 is selected)</b> <u>8 No Limit</u> : All DVD-Video can be played. 1 to 7: Prohibits play of DVD-Video with corresponding ratings recorded on them. 0 Lock All: Prohibits play of all DVD-Video. <b>Changing ratings (When level 0–7 is selected)</b> Unlock Player Change Password Change Level Temporary Unlock
<b>Video</b> <b>DVD-V</b> <b>DVD-VR</b> <b>VCD</b>	<b>TV Aspect (→ 13)</b> Choose the setting to suit your TV and preference.	<u>4:3 Pan&amp;Scan</u> 4:3 Letterbox 16:9
	<b>Time Delay</b>	<u>0ms</u> 20ms 40ms 60ms 80ms 100ms
	<b>Still Mode</b> Specify the type of picture shown when paused.	<u>Automatic</u> : Still picture is displayed without being blurred or at high quality. Field: The picture is not blurred but picture quality is lower. Frame: The overall quality is high but the picture may appear blurred.
	<b>NTSC Disc Output</b> Choose PAL 60 or NTSC output when playing NTSC discs (Video systems → 6).	<u>PAL60</u> : When connected to a PAL television. NTSC: When connected to an NTSC television. (For NV-VP60GCS, “NTSC” is the factory preset.)
	<b>Picture/Video Output</b> Choose the video signal format to be output for JPEG MPEG4 and DivX video.	<u>Automatic</u> PAL NTSC/PAL60
<b>Audio</b> <b>DVD-V</b> <b>DVD-VR</b> <b>VCD</b>	<b>PCM Digital Output (→ 33)</b>	<u>Up to 48 kHz</u> Up to 96 kHz
	<b>Dolby Digital (→ 33)</b>	<u>Bitstream</u> PCM
	<b>DTS Digital Surround (→ 33)</b>	<u>Bitstream</u> PCM
	<b>MPEG (→ 33) (For NV-VP60GC only)</b>	<u>PCM</u> Bitstream
	<b>Dynamic Range Compression (Dolby Digital only)</b> Change the dynamic range for late night viewing.	<u>Off</u> On: For clear dialog when listening at low volume.
<b>Display</b>	<b>Menu Language</b> Choose the preferred language for these menus and the on-screen messages.	<u>English</u> Français Deutsch Italiano Español Português Русский Nederlands (For NV-VP60GCS only) English 中文
	<b>On-Screen Messages</b> Choose whether to show on-screen messages or not.	<u>On</u> Off
	<b>Background during Play</b> Select background during JPEG and MPEG4 playback.	<u>Black</u> Grey
<b>Others</b>	<b>DivX Registration</b> Displays the unit’s registration code.	You need this registration code to purchase and play DivX Video-on-Demand (VOD) content (→ 25).
	<b>QUICK SETUP (→ 13)</b> Answers questions for making basic settings.	<u>Yes</u> No
	<b>Re-initialise Setting</b>	Yes <u>No</u>

# Recording from DVD to VHS

You can record the contents of a disc onto a video cassette.

- Select the unit viewing channel (or the AV input) on the TV.
- Insert a video cassette with an intact erasure prevention tab.
- Press **[DVD SELECT]** (→ 8).
- Select the desired recording mode (→ 16).

## Manual Copying

Only discs that are not copy protected can be used.

- Press **[DVD SELECT]** (→ 8).
- Set "On-Screen Messages" to "Off" (Setup menu → 37).
- Insert the disc to be recorded (→ 23). When you copy NTSC discs, select "NTSC" in "NTSC Disc Output" (Setup menu → 37).

- [1] Press [VHS SELECT] and then press [INPUT SEL] repeatedly. Select "dc" channel.**

- Recording is allowed only when the VHS input channel is set to "dc" (→ below).



- [2] Press [DVD SELECT] and then press [▶ PLAY].**  
Start playing the disc and find the playing start point.

- [3] Press [II/PAUSE].**

- [4] Press [VHS SELECT] and then press [▶ PLAY].**  
Start playing the video cassette and find the recording start point.

- [5] Press [II/PAUSE] and then press [● REC].**  
Put the unit in the recording standby mode.

- [6] Press [II/PAUSE].**  
VHS recording and disc play start at the same time.

### ◇ To stop recording

- 1) Press **[■ STOP]**. Recording will stop.
- 2) Press **[DVD SELECT]** and then press **[■ STOP]**. Disc play will stop.

### Notes:

- You can select the audio channel to be recorded on the Normal audio track when copying a bilingual DVD (→ 21).
- Recording cannot be done if using a copy protected disc. By pressing **[● REC]** at "dc" channel during DVD playback, the message "COPYING OF THIS MATERIAL IS NOT ALLOWED." appears on the TV screen.

## DVD-RAM Copying

You can copy programmes on a DVD-RAM disc to a video cassette with One-touch operation.

- This function allows DVD-RAM discs recorded by Panasonic DVD recorders to be copied.
- Insert the disc containing the programme to be copied (→ 23).
- This function allows you to record the whole content on a disc automatically. Confirm that the remaining tape time is sufficient for recording.

### While stopped, press and hold [DVD-RAM COPYING] for 5 seconds or more.

When the disc is played all of the content or the tape reaches its end, this unit automatically stops copying.

- The message is displayed on TV screen for a few seconds when DVD-RAM copying is completed.

### ◇ To stop recording

Press **[■ STOP]**.

### ◇ When " " and " " is flashing

Check the settings again.

### Notes:

- In this function, the index signal is automatically added on the tape for each of the programmes. You can find the desired programme with these index signals (→ 19).
- This function does not work during timer recording standby mode.
- When the copying starts, "On-Screen Messages" in the Setup menu is automatically set to "Off". The "dc" channel is automatically selected (→ below).
- If you press **[DVD-RAM COPYING]** again, the copying starts at the stop position memorized (**Resume function** → 23). "III" in the unit's display flashes.

### "dc" channel

- When the disc is played with the "dc" channel set, the TV screen displays the disc video.



# Before Requesting Service

Before requesting service, check the following points once again.

## General

<b>No power.</b>	<ul style="list-style-type: none"> <li>• Connect the AC mains lead securely to mains supply.</li> </ul>	<b>9</b>
<b>No response when buttons are pressed.</b>	<ul style="list-style-type: none"> <li>• Some operations may be prohibited by the disc.</li> <li>• The unit may not be operating properly due to lightning, static electricity or some other external factor.</li> </ul> <p><b>Reset procedure:</b> Press [⏻VHS/DVD] to switch the unit to the standby mode and then back to ON. Alternatively, press [⏻VHS/DVD] to switch the unit to the standby mode, disconnect the AC mains lead and then wait for 1 minute. Reconnect the AC mains lead.</p>	— — —
<b>No operations can be performed with the remote control.</b>	<ul style="list-style-type: none"> <li>• Check the batteries are inserted correctly.</li> <li>• The batteries are depleted: Replace them with new ones.</li> <li>• Point the remote control at the remote control sensor and operate.</li> </ul>	<b>4</b> <b>4</b> <b>4</b>
<b>Cannot select alternative languages.</b>	<ul style="list-style-type: none"> <li>• This function depends on software availability.</li> <li>• Try selecting from the disc's menu if one is available.</li> </ul>	— —
<b>The Setup menu cannot be accessed.</b>	<ul style="list-style-type: none"> <li>• Press [DVD SELECT] (→ 8).</li> <li>• Cancel all program and random play.</li> </ul>	— <b>27</b>
<b>Cannot operate the unit. Cannot operate the TV.</b>	<ul style="list-style-type: none"> <li>• Press [VHS/DVD SELECT] properly.</li> <li>• The unit is in timer recording standby ("⏻" is On on the unit's display).</li> <li>• Check the TV maker setting.</li> </ul>	— <b>18</b> <b>11</b>
<b>The TV reception got worse after connecting this unit.</b>	<ul style="list-style-type: none"> <li>• This can occur because the signals are being divided between the unit and the TV. It can be solved by using a signal booster, available from audio-visual suppliers. Consult your dealer if reception does not improve.</li> </ul>	—
<b>The tape counter isn't changing.</b>	<ul style="list-style-type: none"> <li>• The tape counter does not change while playing unrecorded parts.</li> <li>• The tape is dirty or damaged. Consult your dealer if this is the case.</li> </ul>	— —
<b>No on-screen display.</b>	<ul style="list-style-type: none"> <li>• Go to "OPTION" in the VHS menu and select "AUTO" for "OSD".</li> <li>• Go to "Display" in the Setup menu and select "On" for "On-Screen Messages".</li> </ul>	<b>21</b> <b>37</b>
<b>The menu is displayed in a different language.</b>	<ul style="list-style-type: none"> <li>• Go to "LANGUAGE" in the VHS menu and select the desired language for menus.</li> <li>• Go to "Disc" in the Setup menu and select the preferred language for "Menus".</li> </ul>	<b>13</b> <b>37</b>

## Sound

<b>No sound. Distorted sound.</b>	<ul style="list-style-type: none"> <li>• Check the connections.</li> <li>• Check the volume on the equipment you have connected.</li> <li>• Ensure that the input settings on the other equipment are correct.</li> <li>• Turn "Advanced Surround" off if it causes distortion.</li> <li>• Output from this unit will be in stereo (2 channels) when "Advanced Surround" is on. Turn "Advanced Surround" off if you are using three or more speakers.</li> <li>• Press [▶PLAY] to restore normal play after changing the speed.</li> </ul>	<b>9, 10</b> — — <b>31</b> <b>31</b> <b>26</b>
<b>Piercing noise comes from the speakers.</b>	<ul style="list-style-type: none"> <li>• If you have connected this unit to other equipment through the COAXIAL DIGITAL AUDIO terminal, ensure you have selected the correct settings for "Dolby Digital", "DTS Digital Surround" and "MPEG" in the Setup menu's "Audio" menu.</li> </ul>	<b>33, 37</b>
<b>There is noise when playing a video tape.</b>	<ul style="list-style-type: none"> <li>• Adjust the tracking.</li> <li>• The tape is old or damaged.</li> </ul>	<b>15</b> —
<b>Effects do not work.</b>	<ul style="list-style-type: none"> <li>• "Dialogue Enhancer" and "Advanced Surround" do not work when the unit is outputting bitstream signals.</li> <li>• "Advanced Surround" does not work if you have changed the play speed.</li> </ul>	— <b>26</b>

## Recording

<b>The picture is recorded with noise or a blank screen.</b>	<ul style="list-style-type: none"> <li>• Check the antenna connection to the unit.</li> <li>• Check your normal TV picture. If there is no picture, check your antenna.</li> <li>• The unit is not correctly tuned. Retune the unit.</li> <li>• A1 or A2 has been selected. Select the required TV programme.</li> <li>• The playback picture is distorted when recorded in the EP mode using MESECAM system. We recommend PAL system for recording in the EP mode.</li> </ul>	<b>9</b> — <b>12</b> — —
<b>Timer recording doesn't record a programme correctly.</b>	<ul style="list-style-type: none"> <li>• Check the clock and calendar.</li> <li>• Set the channel and start/end times correctly.</li> <li>• Be sure to press [⏻TIMER] after programming to put the unit in timer recording standby.</li> <li>• Programme times may be overlapped.</li> </ul>	<b>13</b> <b>18</b> <b>18</b> —
<b>"⏻" flashes when I try to start recording. Cannot record.</b>	<ul style="list-style-type: none"> <li>• If the erasure prevention tab has been removed, cover the hole with adhesive tape.</li> </ul>	<b>4</b>



## Before Requesting Service

### Disc play

<b>Play doesn't start (or stops immediately) when you press [▶ PLAY].</b>	<ul style="list-style-type: none"> <li>Condensation has formed: Wait 1 to 2 hours for it to evaporate.</li> <li>This unit cannot play discs other than those listed in these operating instructions.</li> <li>This unit cannot play DVD-Video with a region number other than "2, 3", "ALL" or multiple region numbers including "2, 3".</li> <li>The disc may be dirty and may require cleaning.</li> <li>Ensure that the disc is installed with the label of the side to be played facing upwards.</li> <li>Check that the DVD-RAM has something recorded on it.</li> <li><b>DivX</b> If playing DivX VOD content, refer to the website where you purchased it. (Example: <a href="http://www.divx.com/vod">www.divx.com/vod</a>)</li> </ul>	— 5 6  6 23 — 25
<b>No menu play.</b>	<ul style="list-style-type: none"> <li>This function depends on software availability.</li> </ul>	—
<b>No subtitles.</b>	<ul style="list-style-type: none"> <li>This function depends on software availability.</li> <li>Subtitles are cleared from the TV. Display the subtitles.</li> <li>Subtitle's position is wrong. Adjust the position.</li> </ul>	— 30 30
<b>Soundtrack and/or subtitle language is not the one selected with the Setup menu.</b>	<ul style="list-style-type: none"> <li>This function depends on software availability.</li> </ul>	—
<b>Cannot change angle.</b>	<ul style="list-style-type: none"> <li>This function depends on software availability. Even if a disc has a number of angles recorded, these angles may be recorded for specific scenes only.</li> </ul>	—
<b>Folders deeper than the eighth layer on a data CD are not displayed correctly.</b>	<ul style="list-style-type: none"> <li>Folders deeper than the eighth layer are displayed as if there were in the eighth layer.</li> </ul>	—
<b>You have forgotten your ratings password. Reset all the settings to Factory Preset.</b>	<ul style="list-style-type: none"> <li>While stopped and "DVD" is the source, press and hold [<b>◀◀REW</b>] (VHS), [<b>▶▶PLAY</b>] (DVD) and [<b>▲OPEN/CLOSE</b>] on the unit for about 3 seconds until "Initialised" disappears from the TV. Turn the unit off and on again. All settings will return to the default values.</li> </ul>	—

### Picture

<b>No picture.</b>	<ul style="list-style-type: none"> <li>Check the connection.</li> <li>Make sure the TV is on.</li> <li>Ensure the video exclusive channel (or AV input) is selected. Also adjust the channel on the TV. (Also refer to the operating instructions for the TV.)</li> </ul>	9 — —
<b>The picture shown on the TV is not normal. (The sides of the picture are cut off, the picture is stretched horizontally or black bands appear at the top and bottom of the screen.)</b>	<ul style="list-style-type: none"> <li>Go to "Video" in the Setup menu and change "TV Aspect" to suit your TV.</li> <li>Turn off the zooming feature of your TV if you are using Variable Zoom.</li> <li>Ensure that the unit is connected directly to the TV and is not connected through an A/V selector or other equipment.</li> <li>Connect to the component video input terminals on a 480p compatible TV (Video will not be displayed correctly if connected to an incompatible TV).</li> </ul>	37 32 — 9
<b>The picture on the TV disappears or stripes appear on the screen.</b>	<ul style="list-style-type: none"> <li>Mobile telephone chargers can cause some disturbance.</li> <li>The TV antenna cable is too close to the unit. Separate the antenna cable of the TV from the unit.</li> </ul>	— —
<b>The Setup menu and other screens shown on the TV are displayed incorrectly. Colours appear faded.</b>	<ul style="list-style-type: none"> <li>The unit and TV are using different video systems. Use a multi-system or PAL TV.</li> </ul>	—
<b>When playing PAL disc, picture distorted.</b>	<ul style="list-style-type: none"> <li>Set "Transfer Mode" in "Picture Menu" to "Auto".</li> </ul>	34

### VHS picture

<b>The picture is noisy or is in black and white. Horizontal bars or lines run down the screen.</b>	<ul style="list-style-type: none"> <li>Adjust the tracking.</li> <li>The TV has not been tuned to the unit. Tune the TV to the unit.</li> <li>Make sure the TV's input setting is correct.</li> <li>The video heads are dirty: clean them with a head-cleaning cassette.</li> <li>The video heads are worn: consult your dealer.</li> <li>The tape is old or damaged.</li> <li>You cannot correctly play tapes recorded with other systems. Go to "OPTION" and change "NTSC PB SELECT" to suit the recording.</li> </ul>	15 12 — 4 — — 21
<b>The blue back appears during play.</b>	<ul style="list-style-type: none"> <li>You are playing a blank or poor quality part of the tape.</li> <li>You can damage the unit if you play dirty or damaged tapes and this can cause the blue back to appear. Consult your dealer.</li> </ul>	— —
<b>The picture jiggles.</b>	<ul style="list-style-type: none"> <li>Adjust the vertical hold.</li> <li>Adjust the TV's vertical hold. Refer to your TV's operating instructions.</li> </ul>	15 —

## Disc picture

The picture is distorted.	•Some distortion is normal during search.	—
The picture quality is poor.	•Check the settings in the On-Screen Menu "Picture Menu".	34
Menus not displayed correctly.	•Change the zoom ratio to "×1.00". •Set the subtitle position to 0. •Go to "Video" in the Setup menu, and change "TV Aspect" to suit your TV.	32 30 37

## Editing

Black bands appear in the recording.	•Move the other equipment away from the TV as it may be picking up interference.	—
Recording video or audio from external equipment is not possible.	•The connections were done incorrectly. Check the connections to the other equipment. •The external input channel "A1" or "A2", to which the player is connected is not selected. Press [INPUT SEL] to select "A1" or "A2".	17 17
A video was copied, but it is distorted or the colours are abnormal.	•Copy-protected material was copied. Copy-protected materials cannot be recorded normally. Most commercially available videotapes and DVD discs (including rental soft tapes/DVDs) are copy-protected so that illegal copying is impossible.	—
The audio level on the DVD section does not correspond to that on the VHS section after editing.	•Some discs may reproduce different audio levels. If the audio in particular parts, such as speech, is set to a low or high level, it may be recorded on the video cassette at a low or high level.	—

## Error Messages

### On-screen display

PLEASE PUT IN A VIDEO CASSETTE.	•[●REC] or [⏻ TIMER] has been pressed without a video cassette inserted. Insert a video cassette with an intact erasure prevention tab.	16, 18
PLEASE STOP THE TAPE.	•TUNER PRESET has been selected during playback. Stop the tape.	20
PLEASE USE A CASSETTE WITH TAB.	•[●REC] or [⏻ TIMER] has been pressed without a video cassette with an intact erasure prevention tab. Use a video cassette with an intact erasure prevention tab.	4
NO TIMER RECORDING HAS BEEN SET.	•[⏻ TIMER] had been pressed with no timer programmes. Set timer recording.	18
VHS IS IN THE TIMER STANDBY MODE.	•[⏻/I] had been pressed when VHS is in the timer standby mode. Cancel Timer Programme before switching the unit to standby mode.	18
Cannot display group xx, content xx	•You are trying to display incompatible pictures.	—
Authorization Error	•DivX You are trying to play the DivX VOD content that was purchased with a different registration code. You cannot play the content on this unit.	25
Rental Expired	•DivX The DivX VOD content has zero remaining plays. You cannot play it.	25

### Self-diagnostic Indications on the unit's display

H□□, F□□ (□□ stands for a number.)	•An error has occurred. The number following "H" or "F" depends on the status of the unit. <b>Reset procedure:</b> Press [⏻/I] to switch the unit to the standby mode and then back to ON. Alternatively, press [⏻/I] to switch the unit to the standby mode, disconnect the AC mains lead, and then reconnect it. •If the service numbers fail to clear, note them and contact a qualified service person.	— —
noDISC	•You haven't inserted a disc; insert one. •You haven't inserted the disc correctly; insert it correctly.	— 23
noPLAY	•You inserted a disc the unit cannot play. •Disc is dirty. Wipe it clean. •You inserted a DVD-R which is not finalized. •You inserted a blank DVD-RAM. •A disc whose playback is restricted in the Setup menu is inserted. Change the "Ratings" setting.	5 6 5 — 37

# Glossary

## Audio channel for DVD (ch)

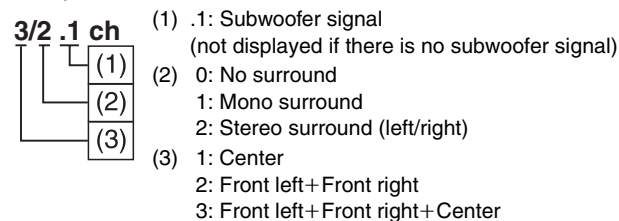
Sound is divided into channels based on the sound's role.

Example: 5.1 channel

- Front speakers— 1 left channel and 1 right channel
- Center speaker— 1 channel
- Surround speakers— 1 left channel and 1 right channel
- Subwoofer— 1 channel  $\times 0.1$  (the ratio of bass to the total amount of sound output)

The following are indicated on the On-Screen Menu Icons.

Example:



## Bitstream

Digitized and compressed audio signal.

It is decoded by decoders into multi-channel audio signals, such as 5.1 channels.

## Decoder

This device restores the coded audio signals on DVDs to normal. This is called decoding.

## DivX

DivX is a popular media technology created by DivX, Inc. DivX media files contain highly compressed video with high visual quality that maintains a relatively small file size.

## Dolby Digital

This is a method of coding digital signals developed by Dolby Laboratories. Apart from stereo (2-channel) audio, these signals are also compatible with 5.1-channel audio. A large amount of audio information can be recorded on one disc using this method.

## Dolby Pro Logic

A surround system where a 4-channel audio track is recorded as 2 channels and then is restored to 4 channels for play.

## DTS (Digital Theater Systems)

This surround system is used in many movie theaters around the world. There is good separation between the channels so realistic sound effects are possible.

## Film and video

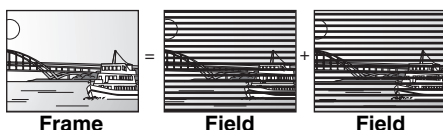
DVD-Videos are recorded using either film or video. This unit can determine which type has been used, then uses the most suitable method of progressive output.

**Film:** Recorded at 25 frames per second (PAL discs) or 24 frames per second (NTSC discs). (NTSC discs recorded at 30 frames per second as well). Generally appropriate for motion picture films.

**Video:** Recorded at 25 frames/50 fields per second (PAL discs) or 30 frames/60 fields per second (NTSC discs). Generally appropriate for TV drama programs or animation.

## Frame and field

Frames are the still pictures that go together to make a moving picture. A frame is made up of 2 fields.



- A frame still is made up of two alternating fields so the picture may appear blurred but the overall quality is high.
- A field still is not blur, but it has only half the information of a frame still so picture quality is lower.

## ID3 tag

MP3 file that has an area in which the character-based information referred to as ID3 tag, is stored. The information of the track, such as the title, artist name, etc. can be stored here. The information can be displayed on players supporting the ID3 tag when a track is played back. However, this unit cannot because it does not support the ID3 tag.

## Interlace and progressive output

The NTSC video signal standard has 480 interlaced (i) scan lines, whereas progressive scanning uses twice the number of scan lines. This is called 480p.

## I/P/B

The DVD recording system shares the data commonly used by screens and uses screen-independent data individually for each screen to store the data on the disc efficiently.

- I-picture (Intra coded picture):  
A frame recorded independently as reference for commonly used data.
- P-picture (Predictive coded picture):  
This picture is calculated based on past I- or P-pictures.
- B-picture (Bidirectionally-predictive coded picture):  
This picture is calculated by comparing past and future I- and P-pictures so it has the lowest volume of information.

I-picture has the best quality and is the best to use when adjusting the picture.

## Linear PCM (Pulse Code Modulation)

These are uncompressed digital signals, similar to those found on CDs.

## MP3 (MPEG Audio Layer 3)

An audio compression method that compresses audio to approximately one-tenth of its size without any considerable loss of audio quality.

## MPEG4

A compression system for use on mobile devices or a network, that allows highly efficient recording at a low bit rate. Recorded with the Panasonic SD multi cameras or DVD recorders and plays.

## Multi-session

- This means recording data onto a CD-R/RW disc several times. "Read-in/Programme area/Read-out" of the data on a disc makes one session.
- If data, such as music, is added onto a pre-recorded CD-R/RW disc, a new session will be added. Such a disc is referred to as a multisession disc.
- Normal audio CD players can playback only the first session. On the other hand, this unit can playback 2 or more sessions.

## Playback control (PBC)

- If a Video CD has playback control, you can select scenes and information with menus.
- In this manual, playing back of the contents of a Video CD using the menu screen is referred to as "Menu play" for Video CD.

## Sampling frequencies

Sampling is the process of converting the heights of sound wave (analogue signal) samples taken at set periods into digits (digital encoding). Sampling frequency is the number of samples taken per second, so larger numbers mean more faithful reproduction of the original sound.

## WMA (Windows Media Audio Picture)

WMA is a compression format developed by Microsoft Corporation. It achieves the same sound quality as MP3 with a file size that is smaller than that of MP3.

# Specifications

NV-VP60GC  
NV-VP60GCS

**Power Supply:**  
**Power Consumption:**

AC 220 V to 240 V 50/60 Hz  
22 W

## ■ VHS SECTION

### Video Recording System:

2 rotary heads, helical scanning system

**Video Heads:** 4 heads

**Audio Heads:** 2 heads (Hi-Fi)

**Tape Speed:** PAL SP; 23.39 mm/s LP; 11.7 mm/s EP; 7.8 mm/s  
NTSC SP; 33.3 mm/s EP; 11.1 mm/s

**Tape Format:** VHS cassette

### Recording/Playback Time:

PAL SP; 240 min with NV-E240

PAL LP; 480 min with NV-E240

PAL EP; 720 min with NV-E240

### FF/REW Time:

Approx. 60 s with NV-E180 (FF/REW)

Approx. 43 s with NV-E180 (JET REW)

## VIDEO

### Television System:

CCIR; 625 lines, 50 fields, PAL colour signal

EIA; 525 lines, 60 fields, NTSC colour signal

### Modulate System:

Luminance; FM azimuth recording

Colour signal; converted subcarrier phase shift recording

### Input Level:

VIDEO IN (PHONO); 1.0 Vp-p, 75  $\Omega$

### Output Level:

VIDEO OUT (PHONO); 1.0 Vp-p, 75  $\Omega$

RF modulate

UHF Channel; E21 ch to E69 ch, 75  $\Omega$

## AUDIO

### Input Level:

AUDIO IN (PHONO); -6 dBV, more than 47 k $\Omega$

### Output Level:

AUDIO OUT (PHONO); -6 dBV, less than 1 k $\Omega$

**Audio Track:** 1 track (normal-mono only),  
2 tracks (Hi-Fi sound-stereo)

### Video Horizontal Resolution:

Colour; more than 240 lines/SP

### Signal-to-Noise Ratio:

Video; more than 43 dB/SP

Audio; more than 65 dB/Hi-Fi

### Dynamic Range:

Audio; more than 90 dB/Hi-Fi audio track

### Audio Frequency Response:

20 Hz to 20 kHz/Hi-Fi

### Wow and Flutter:

0.005% Wrms/Hi-Fi

## ■ DISC SECTION

### Playable Discs [8 cm or 12 cm]:

- DVD (DVD-Video, DivX<sup>®</sup>6.7)
- DVD-RAM (DVD-VR, MP3<sup>®</sup>2.7, JPEG<sup>®</sup>4.7, MPEG4<sup>®</sup>5.7, DivX<sup>®</sup>6.7)
- DVD-R, DVD-RW (DVD-VR, DVD-Video, MP3<sup>®</sup>2.7, JPEG<sup>®</sup>4.7, MPEG4<sup>®</sup>5.7, DivX<sup>®</sup>6.7)
- DVD-R DL (DVD-VR, DVD-Video)
- +R/+RW (Video)
- +R DL (Video)
- CD, CD-R/RW [CD-DA, Video CD, SVCD<sup>®</sup>1, MP3<sup>®</sup>2.7, WMA<sup>®</sup>3.7, JPEG<sup>®</sup>4.7, MPEG4<sup>®</sup>5.7, DivX<sup>®</sup>6.7, HighMAT Level 2 (Audio and Image)]

\*1 Conforming to IEC62107

\*2 MPEG-1 Layer 3, MPEG-2 Layer 3

\*3 Windows Media Audio Ver.9.0 L3. Not compatible with Multiple Bit Rate (MBR)

\*4 Exif Ver 2.1 JPEG Baseline files. Picture resolution; between 160×120 and 6144×4096 pixels (sub sampling is 4:0:0, 4:2:0, 4:2:2 or 4:4:4). Extremely long and slender pictures may not be displayed

\*5 MPEG4 data recorded with the Panasonic SD multi cameras or DVD video recorders. Conforming to SD VIDEO specifications (ASF standard)/MPEG4 (Simple Profile) video system/G.726 audio system

\*6 Plays all versions of DivX<sup>®</sup> video (including DivX<sup>®</sup>6) with standard playback of DivX<sup>®</sup> media files. Certified to the DivX Home Theater Profile. GMC (Global Motion Compensation) is not supported

\*7 The total combined maximum number of recognizable audio, picture and video contents and group: 4000 audio, picture and video contents and 400 groups

## VIDEO

**Signal System:** PAL/NTSC

### Output Level:

Composite video: 1.0 Vp-p, 75  $\Omega$

S-VIDEO: Y output level; 1.0 Vp-p, 75  $\Omega$

C output level; PAL 0.300 Vp-p, 75  $\Omega$

C output level; NTSC 0.286 Vp-p, 75  $\Omega$

### COMPONENT VIDEO

(NTSC; 480p/480i, PAL; 576p/576i):

Y output level; 1.0 Vp-p, 75  $\Omega$

PB/Cb output level; 0.7 Vp-p, 75  $\Omega$

PR/CR output level; 0.7 Vp-p, 75  $\Omega$

## AUDIO

### Output Level:

AUDIO OUT (PHONO); 2 Vrms, (1 kHz, 0 dB, 10 k $\Omega$ )

### Audio Performance:

#### • Frequency response:

DVD (linear audio): 4 Hz to 22 kHz (48 kHz sampling)  
4 Hz to 44 kHz (96 kHz sampling)

CD audio: 4 Hz to 20 kHz

#### • Signal-to-Noise ratio:

CD audio: 115 dB (DVD OUT ONLY)

#### • Dynamic range:

DVD (linear audio): 99 dB

CD audio: 97 dB (DVD OUT ONLY)

#### • Total harmonic distortion:

CD audio: 0.0035% (DVD OUT ONLY)

### Digital Audio Out:

Output: Coaxial digital output

### Pickup:

**Wave Length:** 662 nm/785 nm

**Laser Power:** CLASS 2/CLASS 1

## ■ GENERAL

**Operating Temperature:** 5 °C to 35 °C

**Operating Humidity:** 35% to 80%

**Dimensions:** 430 mm (W)×89 mm (H)×259 mm (D)  
(total external dimensions)

**Mass:** 4.0 kg

### Note:

Mass and dimensions shown are approximate.  
Specifications are subject to change without notice.

